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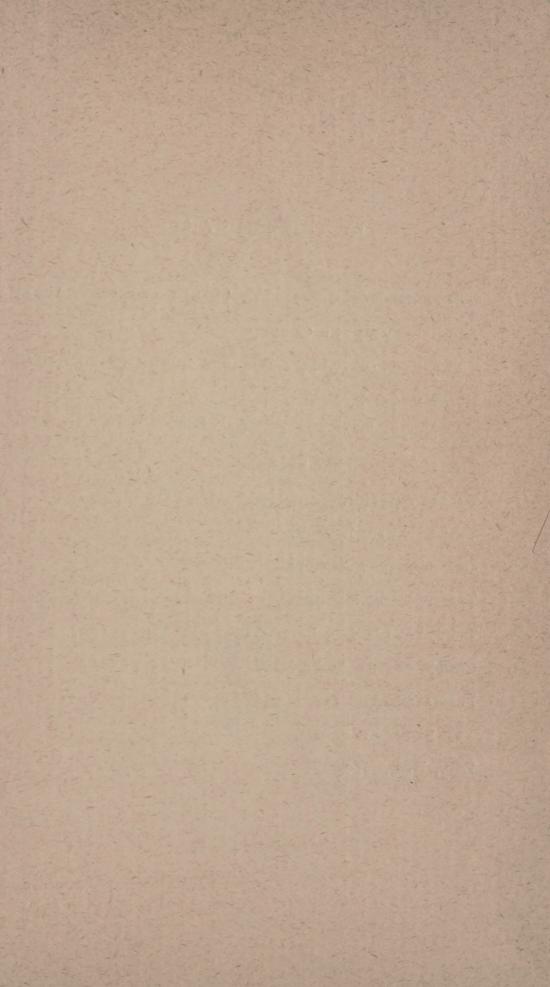
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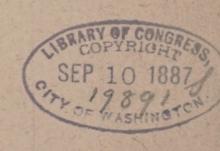
SEA-SPRAY

OR

FACTS AND FANCIES OF A YACHTSMAN

S. G. W. BENJAMIN





NEW YORK
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1887

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THE MEMORY OF MY FRIEND CAPTAIN GEORGE HARDY,

A GENTLEMAN, A CHRISTIAN, AND A MARINER.

Sans Peur et Sans Reproche.

NOTE.

Of the ten papers comprised in this volume the first and ninth are now published for the first time. Of the others, the second, third and sixth appeared in the Century Magazine, but they have been modified and altered in accordance with more recent events and facts bearing on those subjects. The fourth paper was published in the New York Star, the fifth appeared in the Manhattan Magazine, the seventh in St. Nicholas, the eighth in Appleton's Journal, and the tenth in the London Art Journal. Thanks are due to the publishers of those periodicals for permission to reproduce those papers in the present form.

S. G. W. BENJAMIN.

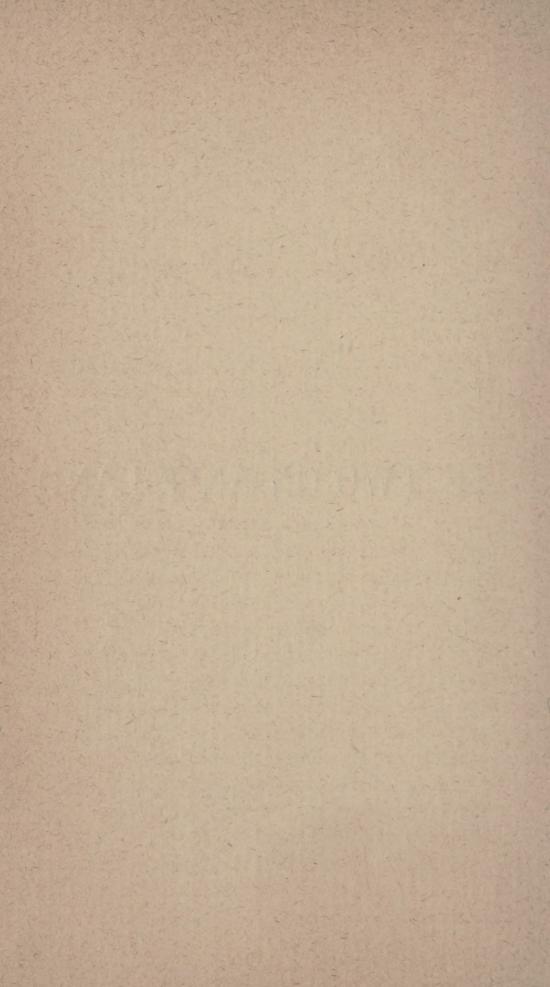
NEW YORK, July 30, 1887.

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WE TWO ON AN ISLAND.



WE TWO ON AN ISLAND.

THE laborious sittings of a long session of Parliament had proved a severe task for my nerves. My usual recreation, shooting black cock on the moors, did not appear to meet my case at this time, and by the advice of the physicians, I bade farewell to my friends and took passage in one of Modney Wigram's crack iron-clippers for the south seas. This trip was rendered less difficult from the fact that I had been so unhappy as to lose my wife the previous year, and there was really no family tie to detain me in Scotland.

The passage was attended by no important or unusual incidents until after we rounded Cape Horn. The captain was an agreeable man of some education, who knew how to lessen the tedium of the voyage, and besides a number of emigrants in the steerage, there were several pleasant passengers in the cabin. One of them was a most respectable emissary of the Society for the Propagation of the Gospel, who proposed to elevate and cultivate the cannibals of those benighted seas and reform their taste as well as their morals. For the former he car-

ried a supply of canned meats and calicoes, for the latter Bibles and tracts which he intended to translate into a yet unwritten tongue. Had he been less young, juicy, and succulent I should have felt greater hope of the success of his gospel efforts among those unsympathetic children of nature.

We were already beginning to count the days yet to elapse before our arrival at the destined port. The winds were favorable and the crew were painting and tarring alow and aloft, according to the custom when a ship is approaching port after a long voyage. It was about midnight of a breezy night. There was a high swell, and the sky was overcast; but this is not unusual even in good weather at sea. The ship was booming along with a majestic motion; they had just struck eight bells, and the watch had turned in, when the lookout on the bow sang out with a sharp, quick cry that thrilled every one to the marrow, "Breakers ahead!" At the same instant and before the mate could demand "Where away?" the vessel arose on an immense roller, and as the sea passed under with a mighty roar and a mass of foam that half smothered the bow, she struck on a ledge with a shock that threw every one flat and carried away the foremast at the hounds. It was evident to the merest lubber that the blow was mortal, and as we all rushed on deck it was simply a question of how many seconds would elapse before she went down with all on board.

The next sea lifted the ship and forced her ahead,

at the same time curling over the taffrail and sweeping the deck from stem to stern. Carried a few yards further into deeper water beyond the reef, the vessel broke in two under our feet and went down; a shriek of terror from a hundred souls clove the gloom as the wild waters closed over the mighty fabric and her living freight. Of course I was engulfed with the others, but by the mercy of Providence I failed to become entangled in the wreck and soon came to the surface. Being a good swimmer I was able to regain my breath and found that I was in comparatively smooth water under the lee of the reef, and was being rapidly borne towards a low land I now discerned not far off. But the roar of the surf as I drew near the shore told me that I had still to encounter a great peril in riding over the last line of breakers. If the shore were rocky, my only hope was gone; but if it should prove sandy I might get safely to land provided the undertow were not too violent. Happily I was carried to the bottom of a small cove where the sea rolled in creamy foam upon a low beach of fine white sand. My experience in surf bathing enabled me to extricate myself and once more I trod on firm land greatly exhausted but otherwise uninjured.

My first impulse was to drop on my knees and return devout thanks to the Being who had rescued me from the fate which had swept all my companions into eternity in a few short moments. But my next thought was one of sinking depression, of profound dispair. Was I on an island of savages and cannibals, or on a mere desert rock affording neither companionship nor sustenance? My search after health did not now appear to be a successful speculation. It needed little reflection under the circumstances for me to prefer an early grave amid the wild heather of my native hills to a life prolonged under the present conditions.

But my wearied nature demanded repose; while lying on the grass lost in these terrible reflections, I fell asleep. My slumbers were deep and lasted until the sun rising above a grove of cocoa palms, shone full in my eyes. As near as I could judge it was ten o'clock. I awoke gradually, not at first realizing my situation. But as the truth gradually dawned upon my waking senses, I sprang to my feet and looked around. The prospect was pleasing in itself, the elements of which it was composed being simple and attractive. I was on a low coral island of small dimensions, so far as I could judge from where I stood. Cocoanut groves raised here and there on their graceful shafts a waving canopy of green under which one might repose with serene and voluptuous satisfaction in the soft breeze that blew off the smiling sea. Numerous water fowls waded fearlessly in the lagoons, and the perpetual surf seem to enclose the island from the surrounding world by a barrier of dreamy sonorous sound.

But I found nothing agreeable in this scene at this time. It was but too evident that the island was uninhabited, and very likely undiscovered, as our

captain had expected to see no land in this quarter; the ship had probably been carried out of her course by unknown currents. As I wandered aimlessly along the beach oppressed by an appalling sense of solitude, I discovered no signs of the foundered ship except two or three bits of spars and a barrel of biscuit, which being only half full had happily floated ashore. A few paces beyond I came on the body of the missionary. A moment's inspection showed that he was quite dead. There was only one consolatory circumstance about this incident. He had not yet retired for the night when the ship struck, but still dressed was reading his prayer-book. In the terror of the moment he had rushed on deck dressed and with the prayerbook. In this way he had been cast ashore, and I found him with the book clasped tightly to his breast with his stiff, cold, white fingers. While I, on the contrary, had landed with nothing on but a night shirt, and as the clothes of the missionary were no longer of any use to him I felt that it would be a mistake not to avail myself of any possible use they might be to me, especially in the event of a ship touching at the island. So far as the climate was concerned clothing was altogether unnecessary. We cannot sufficiently admire the merciful provision which has caused the temperature to be soft and equable in those regions where the inhabitants prefer to go unclad or find no manufacturing and tailoring facilities for adorning nature with the latest decorative adjuncts prescribed by fashion. After stripping the person of the missionary of its clothes and retaining the prayer-book for unexpected contingencies, I laid the body away under a pile of rocks and leaves.

Having performed these last sad offices, I began to be affected by the gnawings of thirst and hunger. The commissariat resources of the island I soon found were limited to pools of limpid water in the clefts of the rocks, turtle eggs and cocoanuts. There was no choice, and I at once adapted my stomach to the circumstances. My health had been so much improved by the voyage and my constitution was naturally possessed of such recuperative power, that I felt a strong hope of surviving until rescued by a passing ship. The number of vessels constantly traveling the seas in the present age led me to entertain strong hopes that no such long solitude as that of Robinson Crusoe was in store for me. I reasoned that if I could only sustain my courage and hence also my health, I might yet see my home once more and re-enter the scenes of activity, amid which my energies had hitherto found scope. It is not to be denied, however, that the utmost resolution was required not to yield and sink under the fearful calamity which seemed in a moment to have consigned me to a horrible imprisonment, a living death. The first week I began to keep a calendar by marking the days and weeks by notches cut on a spar with the knife taken out of the missionary's pocket. The prayer-book I also found of the

greatest consolation. By constant study of its well-worn pages I discovered a number of passages in the marriage and burial services which I resolved to devote myself to have altered and improved if I should ever be so happy as to see my native shores again. Many other schemes I also resolved in my mind, forcing myself to think systematically of such matters in order not to lose the mental energy which constituted my identity and gave vitality to hope.

Thus months passed by, until I entered the second year of my exile. One sail only had I seen in that period gleaming in the blue offing, but so distant that my signals were of no avail. The second year went by in the same way, and the third year was at hand, when I sat one calm evening on a rock meditating on my condition. To myself I slowly repeated Campbell's "Last Man." I was rejoiced to find that my memory had not yet failed and that I could still speak my native language without faltering. My thoughts then floated back to my boyhood, and I heard my mother once more teaching me to lisp my first prayer. This brought tears to my eyes, and I was saved. For I had seriously meditated the resolution of committing suicide and thus ending my sufferings, as I hoped. But when the tears came and I heard my mother's voice again in memory, nobler thoughts nerved my heart. I arose and shook off the fierce temptation which had well nigh proved my ruin, determined to wait and bear with resignation whatever Providence had in store for me.

As I retired to the couch of leaves I had made for myself in a cave in the rocks, I noticed that a bank of cloud was gradually rising and obscuring the sea and stars. The surf was more loud and hollow than was its want, and the gusts sighed more drearily in the dark palms that on such a night waved like hearse plumes. A change of weather, a storm, perhaps, was about to sweep over the island. At midnight I was awakened by the violence of the wind tearing branches from the trees; the surges beat on the shore, as if they would inundate the isle. The vivid and continuous sheets of lightning revealed a scene of devastation and horror.

When the day broke the storm had passed. It had been violent but brief, and all nature was again serene, and solitary, I was about to add to myself; but as I glanced seaward an object met my gaze which almost paralyzed me with amazement. I could scarcely believe my senses when my eyes fell on a ship snugly berthed in the same small inlet where I had been cast away. I soon discovered that she was aground, having been carried in on the top of a high roller and left in a little over two fathoms of water. No signs of life being apparent on board, it was evident that the crew had either taken to the boats or been washed away.

Approaching the wreck cautiously, I was about to hail her from a point of rock about one hundred yards off, when I discovered a woman emerge slowly from the companionway. This circumstance was of a nature to produce an instant and extra-

ordinary effect on me. I realized as I had not done before that I was in no state to present myself to a lady; my beard and hair were long and ragged, and what was worse, I had nothing on in the way of garments, unless a shirt completely worn to rags could pass for such. Fortunately she had not yet discovered me, being absorbed in gazing in the opposite direction. I dropped instantly behind a rock, where I took careful observations of the enemy through a crevice. So far as I could distinguish she was of an uncertain age, passably good looking, and possessed of an agreeable figure. But she wore spectacles, a mark which suggested wariness in engaging her attention. After what appeared to be hours, I grew so chilled lying on the rock in the wind that I gave vent to several violent sneezes, which it was impossible to prevent. She started on hearing them, and after suspiciously glancing in the direction from which the sounds came, sniffed danger and prudently descended to the cabin.

Now was my chance; leaping to my feet I ran, and tumbled and scrambled over the rocks as if fifty demons were after me until I reached my cave. There I lost no time in putting myself inside the black suit of an Episcopal ritualist clergyman, a stiff-collared-coat and vest and pantaloons to match. So long had I been living in vestibus naturibus that I seemed in these clothes to be bound in a strait-jacket, while the shoes pressed my feet like iron. But the emergency inflexibly required this sacrifice

of personal comfort. The missionary's pocket comb I found to be comparatively useless, my hair was matted into such a hopeless snarl. Having completed this elaborate toilet I straightway returned to the ship, full of curiosity and impatience. Strong in the possession of clothes, I approached with a whimsical mingling of diffidence and courage. I could not avoid congratulating myself at every step for the wise precaution shown in preserving the missionary's clothes, for without them I should have been obliged to banish myself from that part of the island with all the alluring attractions it now presented.

She was standing on the quarter-deck when I made my appearance, holding a small but alert terrier, which was leaning its fore paws on the bulwarks. On seeing me he set up a savage barking that sounded strange indeed to me who had heard no sound but the scream of the seabirds and the beat of the surf for years. The sharp barking startled the birds also, which flew out from the cliffs by hundreds. It was evident from the lady's manner that she had not overcome her timidity while apparently resolved that a parley must be held. Her alarm at the loneliness of her position and her consciousness that communications must be begun, led her to be the first to speak when I stopped on the rock nearest the ship. The burning question for me at this moment was, would she speak Eng. lish; if not, the difficulties of the situation would be greatly complicated.

It was with singular sensations, but at the same time with immense relief, that I heard this lady cry out in voluble tones, "Don't come a step nearer; but pray tell me where is the town; I see no one else about here; do go at once and get some help to take me ashore; and yet stay; I see you are a clergyman, I can trust you, I'm sure I can; what place is this? and is there a good hotel here where I can at once find retirement and rest, after this horrid, horrid night?"

"Madam," I replied, almost startled at my own voice, "there is no town here, no settlement; this is but a small islet in the wide sea, and we are the only human beings here."

"What! you don't mean to tell me that you are alone here?" she screamed, with wild apprehension in her voice.

"It is but too true, and perhaps it is fortunate it is so. For were it inhabited by savages you might have little cause to thank the providence which had driven you to this desolate spot."

She said nothing, but turned away with a motion full of despair. As I moved as if to come nearer, she said beseechingly, "Do not come aboard, sir; remember, we are strangers!"

"Madam, rest assured I am a gentleman and a Scotchman. I was thrown on this island, perhaps, to be of service to you or other beings so unfortunate as to be cast away here; and what is more, I had no thought of going on board. I would advise you, however, not to remain in the wreck. For while

the weather is good to-day, the season is breaking up and at any time another storm wilder than the last one may dash the wreck to pieces, and your last hope of safety would be gone."

"Perhaps that would be the best event that could happen to me," she said, half to herself. Then she continued, "I will think of it. I must trust you; there is no alternative, unless I commit suicide, which is against my principles. Gentlemen of your cloth are famed for their tenderness and chivalry; if you should belie your race and profession, I could at least place my trust in a protecting Providence."

"You shall not find yourself mistaken," I solemnly replied, not disclosing for the time my real profession in order to hasten her landing, for I knew that a storm might at any time snatch from me the companion so singularly brought to solace my loneliness.

"But how shall we arrange for my getting on shore? There is no boat left here; after the captain was washed overboard the cowardly crew took to the boats, leaving me behind, and unless you have a boat you will have to swim on board. You can easily do so in your clothes; it is not far."

Her use of the little pronoun we was encouraging as suggesting an acceptance of the identity of our interests. It showed a growing confidence.

"Unfortunately, I can not swim very well," I replied, venturing on a little fiction justified by the laudable end in view; "it is a neglected branch of

my education. But if you could throw one end of those flag halliards to the shore by weighting it with a marlin-spike, we can easily establish communications, and get you and your luggage safely on shore."

The lady seized the idea at once; she had observed how sailors, when about to cast the lead, hold a coil of the line in the hand, and she in like manner made a coil of the halliards. Then with a desperate effort she threw the marlin-spike with a force quite sufficient to reach me. Strange to say it flew almost in an opposite direction. Hastily coiling the line again, she took another cast with a similar effect, while her spectacles dropped off with the exertion. A faint color rising to her cheek, she threw down the line impatiently, saying, "I really don't know what's the matter with me this morning."

I knew what was the reason; no woman ever could throw any thing straight. But I mildly replied, "It is evident, madam, that you are fatigued, and I think we had better try tying the line to your dog and let him swim ashore with it."

"What, my precious darling, Fido; he'll be certainly drowned."

"Not the slightest fear of it, madam." Then with some impatience I added, "but supposing he should drown, is not your life worth more than a dog's?"

She looked at me with some asperity, and then her good sense returning, aided, perhaps, by a

thought of her perilous situation, she proceeded to put my suggestion into practice. The terrier, with the intelligence of his breed, seemed to take alarm at once, and ran for the cabin. With soothing words the lady coaxed him to submit, and lowered the whining brute into the water. He frantically darted back and forth trying to get back on board, but finding this of no avail he struck out for the shore. It is unnecessary to go into the details by which by means of ropes and blocks I now succeeded in opening communications with the wreck and bringing the lady safely to land. On stepping ashore with a small traveling bag she gathered her skirts about her with dignity, and saying with cold reserve, "Good-morning, sir," walked off in the opposite direction, followed by the small dog shaking the brine from his back as he trotted along in a manner indicating that he regarded me with grave suspicion. On the whole I was not sorry she had this haughty little aristocrat with her; I dimly saw possibilities of his usefulness as new contingencies might arise.

While the lady of the isle was meandering out of sight I hastily threw off most of my clothing and scrambled on board the wreck. It is a curious commentary on the weakness of human nature that my first impulse on entering the deserted cabin was to search for a mirror: I soon found one in a stateroom. But on surveying my face there I was covered with confusion when I realized what the lady must have thought of me, looking like a cross between a howling dervish and a buccaneer, and

dressed in the clerical garb of the Church of England at that! My next impulse was to look for a comb and brush, which I found in the captain's stateroom, the lady having taken her toilet weapons with her. It was a long time before I could make myself presentable. But the sad wailing of the wind in the rigging and the beating of the slack ropes against the masts warned me not to linger too long about such trifles. There were many articles in the ship that we should need and no time was to be lost in landing them before the storms of the changing season should make it impossible.

In the captain's stateroom I found several suits of clothes and changes of linen that I much needed, and which fortunately fitted me. A spy-glass, dishes, knives and forks, canned meats, and a supply of other preserved provisions, a barrel of bread, several cases of wine and spirits, tea, coffee, sugar, cooking utensils and bedding, pen, ink, and paper, with numerous other articles, I speedily collected on the deck, and more important than all, perhaps, a large supply of lucifer matches, together with a musket and ammunition, a fishing line and hooks. I also found in the captain's locker a considerable bunch of rockets, which I seized with avidity as a possible means of providing for our rescue. A trunk was in the stateroom belonging to the lady. Her name was on it-Miss Juliana Oakhurst, Boston, Mass., U. S. A. Her identity was thus revealed. Knowing how much she would require her

luggage, I added the trunk to the collection on deck. With great exertion I succeeded in constructing a raft out of spars, on which all of these articles were safely floated to land, to my inexpressible joy and relief. It was now drawing toward evening. I was so well aware of the importance of getting every thing possible out of the ship that I immediately returned and flung a couple of sails on the raft. The growing darkness reminded me that we had no means for lighting after dark, and on searching I found a lantern, a large can of oil, and several bunches of candles. As I was putting the last things on the raft I heard the lady calling, and I soon discovered her on the rocks. Her visit was evidently forced by hunger. She reminded me that she had had nothing to eat since morning, and asked what were the facilities for preparing a meal. I replied that I had for years subsisted on cocoanuts and turtles' eggs, but that I now hoped she would not be reduced to such fare for some time yet, and, perhaps, never; that the provisions in the ship offered some variety for a long time, if managed with prudence, and that as soon as I could get on shore again we would prepare something to eat.

To this she replied, "I have found a little cave beyond the bluff yonder, I am going to see the twilight from that rock; while I am gone you can place some provisions in the cave for me and any other conveniences you may think I shall require."

I took the hint, and while she walked away rap-

idly I returned with the raft to the shore. The cave to which Miss Oakhurst had alluded was the one I had occupied; she now appropriated it; but as I had intended to place it at her disposal, the question of a lodging place for her was speedily settled. Although almost exhausted with my severe exertions, I carried a mattress to the cave, a bottle of wine, some bread and smoked tongue, to which I added a dish of the delicacies of the island, a jelly cocoanut filled with a soft sweet pulp, of which I had grown as fond as in former days of my native oatmeal.

I could see her watch me while I was occupied with these details; when I left to return to the beach she hastily entered the cave, and I perceived the lantern burning until I feel asleep on a roll of canvas. I was awaked in the morning by a sniffling sound and a rustling in the grass. Starting up suddenly I discovered Fido, who ran off with a quick bark when I called him. A happy thought flashed on my mind: he could be trained to be a messenger between the two lonely beings so singularly cast away on this secluded isle, and kept apart by conditions which at once served to separate them and to draw them together.

I flung the dog a bit of meat; he looked at it wistfully, his tongue lolling over his chops with ill-concealed yearning and delight, while he hesitated, as if in doubt, whether he should so far compromise his position of chief friend and protector of his mistress as to accept bounty from me. Like all

tempted beings, the longer he looked at the meat, the weaker grew his scruples. To hesitate is to be lost; making a sudden dash he snatched up the meat and ran off with it in the direction of the cave. The game was now in my hands, if skilfully managed.

Fido having disappeared I gave attention to the weather, and as I saw the great rollers now breaking on the beach I heartily congratulated myself that I had toiled so diligently the previous day, for it was now impossible to venture to the wreck.

During the day the wind and sea increased, and toward night the masts went by the board and the hull began to go to pieces. With the rising sea I found myself obliged to remove the articles I had brought on shore to a safer While I was thus occupied I noticed Fido returning for the rest of his meal. He showed a growing confidence and friendship, and finally allowed me to pat him on the head. Then he lay down and began to search out the hidden enemies in his fleecy hair, a common canine performance in the comfortable moments which follow a satisfactory meal, and a sure sign of security and repose. I seized the opportunity to scratch off a little note to my guest, Miss Oakhurst, informing her that I had prepared a nice breakfast of tea and fried ham, which was at her disposal in my little bivouac under the cocoanut trees. That I was about to start on my constitutional over the island, and that on my return I should put up a tent. I

also requested her to write me for any thing she might require, and placed my services entirely at her disposal.

Calling Fido, I succeeded after some effort in fastering the note to his neck, together with a package containing paper and pencil. Irritated by his novel necklace, he darted away again and returned to the cave. I also walked towards the opposite end of the island, to take my bath and allow the lady to eat her breakfast undisturbed by the presence of man. When I returned to the camp, I found a note for me on her trunk, which she had discovered and taken a number of things out of it. The note read as follows: "Thanks for bringing my trunk on shore, and for your other considerate courtesies. I prefer to occupy the cave instead of the tent. I shall take a walk in an hour and then would be obliged if you could roll my trunk to the cave. I will come here at sunset for a cup of tea, and will take breakfast here at the same hour in the morning."

Thus already a certain system was arranged for taking our meals and for communicating with each other in a way entirely conformable with female delicacy and reserve. I spread a tent for myself out of the sails and spars and, during the lady's absence, shaded the entrance to her cave with an awning. For several days things went on in this manner. While she was taking her meals I would remain in my tent or stroll over my little insular kingdom, scanning the horizon with my much

valued prize, the spy-glass. I contrived a little table out of a stone slab in the grove for our meals. If we wished any thing of each other we left a note on the table. From day to day I could observe growing signs of confidence on her part, and, as I fancied and hoped, a scarcely concealed longing to make my nearer acquaintance as the terrible sense of her loneliness increased.

One day I discovered that she had washed the dishes herself and had made a small table-cloth out of a piece of her awning. Another day she left a volume of Tennyson on the table with a note saying she knew I must need companionship, and perhaps Tennyson, so congenial to cultivated minds, would aid the slow hours to pass. Later on I had evidence that she had been in my tent and with subtle feminine touches had sought to minister to the comfort of one on whom she was dependent for rescue and protection. Each succeeding day I felt that the unnatural state of solitude in which we were living was gradually yielding, that the barriers that kept us apart were feeling the impulse of an irresistible attraction and that matters were approaching a crisis when perhaps a trifling incident might precipitate a great change in the situation. During the interval, I am free to confess that I suffered intensely with the suspense and the dreadful aggravation of having to keep silent, and alone, after years of desperate solitude, when congenial society was so close at hand. Still I maintained perfect control over my impulses to intrude on the lady's presence; knowing full well that my only hope lay in disarming her reserve by encouraging her confidence and that every advance should, under the circumstances, come from her.

The importance of a personal interview was also becoming evident to me at least, because of the growing necessity of coming to some arrangement regarding the stock of articles I had saved from the wreck. As our interest in them was mutual, I felt that she should be consulted, while her feminine tact might suggest ways for preserving and dividing the provisions that might not occur to me. In one of my notes I ventured to suggest a meeting for this purpose. She coldly replied by the usual paper and pencil that matters were very well as they were and it was therefore hardly necessary.

I was somewhat depressed by this reply, and began to despair of seeing an end to this exceedingly inconvenient and embarrassing situation. As matters now lay I was really worse off in some important respects than before she came, for I was less at liberty to roam when and where I pleased about my dominions, and the dull apathy in which I had become settled had given place to a feverish discontent. It is the unexpected which happens. An unlooked for incident suddenly brought a great and happy turn in my fortunes.

I was lying quietly in my tent, which now proved a great comfort to me, when I heard a loud scream and the quick, sharp bark of Fido. Both sounds were indicative of alarm and danger. Without a moment's hesitation I flew towards the cave. Fido met me half way there, evidently coming to find me, and showing the greatest excitement. To my horror I saw Miss Oakhurst struggling in the water, clinging to a rock to avoid being swept out to sea. In an instant I was at her side and soon had the happiness of placing her again on firm land. Fido testified his joy in the most violent manner, rushing from one to the other and licking our hands with touching emotion.

As soon as the lady could recover herself sufficiently to speak, she said that she was sitting on the rocks near the sea when she fell asleep. I had repeatedly warned her in my notes to beware of the sudden rising of the waves in high tides, which are especially dangerous in the Pacific; she had not fully realized this fact, and on this occasion was rudely awakened by a roller which suddenly swept her off the rock. Happily, the wave was not of the height sometimes reached, and if she had been awake it might have been escaped. As it was, she was able to grasp a projecting rock and cling to it with desperate energy until I could come to the rescue.

Her emotion of gratitude for the efforts I had extended in her behalf, although I had simply done my duty in this emergency, was so vivid that she could not avoid expressing it in her looks, to which she added, "I trust, sir, that you will remain and share our simple supper with me this afternoon." Then, as if abashed by the con-

cession she had made to the situation, and inwardly protesting as it were against the destiny that seemed to insist in tightening our relations, she hastily withdrew to her rocky apartments.

It is difficult to describe my own emotions as I contemplated the entertainment thus unexpectedly offered me and the entire change in my condition which it suggested. My long stay on the island without any communication with the world had led me to abandon hope of leaving it for years, perhaps forever; it was but natural, therefore, that I should turn my thoughts toward ameliorating my life there, and should hail with rapture every aid thrown in my way toward the improvement of my circumstances while this deplorable situation should continue. I therefore started forth at once to explore rocks for shell-fish; I also found some turtle eggs and selected the finest cocoanuts the palm orchard of the isle afforded. These I carried exultingly to our little open air dining quarters by the beach in a recess among the rocks. There I lighted a fire -I had an abundance of kindling wood saved from the fragments of the wreck washed ashore-and when Miss Oakhurst appeared the tea-kettle was singing on the beach over the oven I had built.

It was evident at a glance that my fair guest had performed her toilet with as much care as the limited arrangement of the island permitted. Although what the world is pleased to style passèe, Miss Oakhurst still bore traces of beauty, a beauty somewhat cold and classical, as I then thought, but this

impression might have been owing to the studied reserve she felt it necessary to maintain. I placed her at once at ease by carefully avoiding any thing that looked like sentiment, beginning by conveniently referring to the weather, and the characteristics of the island, and attempting a jocose reference to the absence of news, although I thought the morning paper might contain an item describing her late adventure. Gradually the conversation led to a discussion of our provisions and the importance of making some arrangement for properly dividing the rations of tea, coffee, sugar and other stores, matters of prime importance situated as we were. This conversation led Miss Oakhurst to appreciate more clearly the community of our interests and the difficulty of continuing the course of isolation she had pursued. She might, perhaps, not find it convenient to breakfast with me every day, she remarked, but she conceded the expediency of our taking one meal together each day, in order to confer on matters in which our interests were mutual. Supper ended, my guest prevented any offer of escorting her to her cave by rising abruptly and saying, "I wish you good-evening, sir." walked away rapidly, attended by her faithful henchman, Fido, wagging his tail with self-satisfied content. I watched her until her form disappeared in the twilight.

On the following day we met again, and our acquaintance made decided progress, for I displayed for her inspection every thing saved from

the wreck, and we talked for some time over the means best qualified to add to our comfort while remaining on this lonely island. In order to pass away the time, of which we had an abundance, we took a careful inventory of every thing. contrived a pair of scales by which we measured the least amount required for every meal, and then weighed the sum total of the stores. By this process we were able to form a reasonable estimate of the time these stores could be depended on. By the closest economy we found enough of the principal articles to last four years if used with the utmost care, and making our chief dependence on the provisions that the island afforded us. Of matches and clothing, happily, we had a sufficiency for a longer period by exercising great prudence.

In order to make the time pass less tediously we agreed to keep a journal, each writing in it alternately such incidents or thoughts as might be suggested from week to week. Thus matters went along for several days to all appearances without incident, but in reality full of interest and attraction to me and doubtless to her. The meeting of two souls cast together in this seemingly fortuitous manner was in itself an extraordinary event of deep moment to us, and if to this be added a congeniality of temperament and thought, such an event would be indeed fraught with singular significance. And such I soon fancied to be the case. My own pursuits had been of a nature to draw forth my intellectual energies and give me interest

in matters outside of the petty, selfish routine of mere personal duties and pleasures. From casual remarks of Miss Oakhurst I was also able to gather that she was a woman of thought and culture, thoroughly self-poised, and evincing firmness in her manner, yet possessing sufficient personal graces and magnetism to efface the impression sometimes imparted by such traits. I could also easily perceive from the lavish tenderness she bestowed on her little canine companion that the intellectual element had not quenched the emotional side of her nature. I found myself showing a considerable degree of cordiality toward this member of our insular ménage, whom I should have scarcely noticed under other circumstances.

This community of tastes and thought tended gradually to produce an intelligent companionship. Instead of quite satisfying me, however, this only stimulated a warmer feeling in my heart, which I at first strove to suppress, as I was well aware that if such sentiments should meet with no response I should be more miserable than ever. Miss Oakhurst, on the other hand, seemed to enjoy these conversations. They relieved her sense of solitude, while their tone was of a nature to allay any uneasiness as to the growth of more intimate relations.

I cannot describe the gradual development of our friendship as it ripened into walks by the seaside, in which we discussed theories and books, our favorite authors, women's rights, and other fruitful

questions, inexhaustible because leading to nothing definite. By degrees we came to talk of our homes far away beyond the sea. One quiet evening we sat on the rocks, and, favored perhaps by the shades of twilight creeping over the deep she gave vent to tears as she talked of the far-off land she had left behind. It was the first time she had yielded to emotion since our acquaintance began. The sweet influence of the hour and the abandon of lovely woman in tears moved my whole being with a deep sympathy and a fierce intoxication. Had I been able in that moment to analyze my thoughts, probably I should have found myself reasoning that this long suspense was becoming a long despair—that it was better once for all to terminate it by knowing the best or the worst that was destined by her coming to me on that lonely isle.

With strong, yet guarded emotion, I said: "Miss Oakhurst, has it not occured to you that a way has been provided for relieving this terrible solitude in which you, in which both of us, have been thrown? Is it possible you do not see my regard for you, nay, the deep love you have inspired in me?" As she said nothing, nor made any attempt to move, I continued, "Do you not see how necessary you have become to me? May I not hope that I have also become somewhat important to you?"

As she seemed about to reply I hastily continued, "Do not answer now; take time to think of it, to-morrow, or next day, if you will. The question is

too important for us both to be settled without sufficient reflection."

She responded slowly, "Years ago I loved; my confidence in you leads me to make this confession, and the fervor of your declaration seems to demand it. My hero died on the field of battle, and the fires of my heart burned out at his grave. It is not just to such love as yours to offer less than you give. I respect you, I honor you as a friend, but of what you speak let us say no more."

Although I had already been married and ought to have had some knowledge of the female heart, yet I allowed myself for the time to accept her statement as final and delicately refrained from pursuing the subject on that occasion, lest I should wound her feelings by causing her to remember too vividly the painful event to which she had alluded. With a few commonplace remarks we both arose and separated, she to her cave, I to my tent.

The following day I was surprised, and I may add pleased, to find less reserve in her manner than I expected after the repulse of the previous evening. Indeed, there was a certain warmth in her tone which, at first, I thought was intended to show that she felt no change in her friendship while repelling a more tender feeling. But as the day wore on and she showed less inclination to return to her cave than had been her wont, I began to be encouraged by her lingering presence, and my spirits were again buoyed by hope as we started

on our evening walk to see the moon rise over the sea. Fido, with instinctive concession, quietly followed as if he intended not to intrude, nor by any unusual boisterousness to disturb the current of important events transpiring on the island.

We sat down on our favorite seat facing east. At our feet the dying waves plashed with a silvery music; over us a grove of cocoas whispered a low hymn in the soft sea wind. The rambling talk in which we had been engaged ceased by tacit consent, and we both sat silent absorbed in thought, doubtless on the same engrossing subject. Fido, with a little whine, as if he felt the exclusion he was suffering, leaned against her wistfully and sought a caress. She laid her hand on his head and said pleasantly, "Poor Fido, does he feel lonely?" I laid my hand on her other hand and she did not withdraw it.

With fast beating heart I whispered, "Darling." She looked into my eyes a moment and then with a half sigh arose and softly said, "Let us go."

I offered her my arm and she took it, or rather allowed the tips of her fingers to rest there; and thus with few words but much thinking we reached the cave where I wished her "good-night."

The following morning she did not appear at our early meal. I breakfasted with much uneasiness, taking only a very light repast. I was so far able to listen to the dictates of prudence as to retire and leave her to breakfast alone, aware that the slightest indiscretion on my part

might startle my bird away from the cage I had prepared for her in my heart and life. But in the afternoon, Fido came bounding toward the beach by my tent and soon the lady herself appeared. In a moment I joined them, and we prepared our dinner together, a fête champêtre where love was present as a guest. Again we took our ramble at evening, arm in arm, and chatted with growing familiarity. It was evident that she was accommodating her mind to accepting the inevitable and was yielding to the decrees of destiny with a grace which, in this case, added sweetness to her fate. Edging around the subject with all the eagerness and deliberation of those who have no cause to fear interruption we gradually brought up the question of marriage. We were in spirit accepted lovers, and to such, matrimony is a natural sequence, while the circumstances in which we were placed freed us from the conventionalisms that require a long period of courtship and wooing; this, it is proper to add, was my argument, for when I spoke of marriage, she replied, "We are such good friends why are we not happy as we are?"

"Yes," I replied with slight impatience, "that is all very well; but you do not need to be told, my love, that to remain as we are is simply to continue as friends, whereas we are lovers, are we not? Suppose next month a ship should arrive and take us off the island; you can see what a change it would make in our relation. This world is suspi-

cious and censorious; your friends might insist on your rejecting me; in fact throwing me entirely overboard. I cannot bear to think of it, for I tenderly and truly love you for my wife till death do us part." I repeated with feeling, "I do not understand why our being rescued should separate us."

She replied, "It ought rather to endear us more to each other. I am not so fickle as you imagine, nor so weak. But suppose I consent to what you are urging; there is no clergyman here to perform the ceremony. To be sure you have the missionary's black suit and prayer-book," she continued, with a faint mischievous smile flickering about her lips, "but I do not see how that can be of much help to us."

This was indeed a serious question which might have proved to be a permanent obstacle to our union while on the island. I said nothing for a moment. I was unutterably annoyed and perplexed by the turn affairs were taking; until an idea flashed on my mind with the quickness of a meteor from the heavens. Taking the lady's hand I said earnestly, " Dearest, I see a way provided for us by the beneficent law which has enabled different communities to live reputably with diverse organizations and laws. You know that I am a Scotchman as well as a Churchman. Now we have in Scotland a custom sanctioned by custom and law that a man and woman acknowledging each other as man and wife are so accepted as indissolubly and undeniably as though wedded by

canonical forms. As a Churchman I may prefer marriage in Church form, while as a Scotchman I feel entirely justified in marrying you simply by public acknowledgment. The only difficulty in our standing up and marrying each other before God under the Scotch law now lies in the fact that you are not a Scotchwoman, but I am by no means certain that that would operate as a bar under circumstances so extraordinary as ours."

She looked at me a moment with a pleasant smile, and then said, "If you, as a Scotchman, are at liberty to contract marriage in this way, with a full observance of the sanctity of its obligations, then perhaps I enjoy a similar liberty. I came from the State of New York, or rather I have recently resided there long enough to feel justified in following its laws here. The law of New York permits the same form of marriage by simple acknowledgment, as does that of Scotland. Do you see, dear?"

I did see, and I also felt that all moral obstacles to our union appeared removed. From despair my heart leaped to the heights of rapture. I threw my arms around her and pressed my lips to hers. Gently resisting, she stepped lightly back, saying, "Is it not time to be going home?"

"But, darling, when shall our marriage take place?" I asked.

She replied, "Ask me not now, to-morrow will do as well!"

I could not avoid a sigh of disappointment, but yielded to her wishes. As we wended our way in the moonlight, I talked over the plans for the wedding, as if there could be much to arrange, there being no guests to be bidden, no bridesmaids, no cards, no trousseau, no prospective bridal tour. But I spoke of the forms to go through with, in order to give every possible validity to the solemn relation on which we were about to enter. Having at that time, like most Britons, I regret to add, a somewhat nebulous knowledge of the United States, especially regarding the autonomous character of the states in the regulation of their internal affairs, I remarked with delicious simplicity which brought a ringing peal of laughter to her lips, "I understand that you came originally from Boston, and yet you say that it is because of a residence in New York that you are entitled to the right to marry me by simple declaration. What possible difference can it make, as both are cities of the same country?"

"Why, don't you see, you poor dear, that they are in different states?"

"Well, what of that? Is it not all one country, with Washington for its capital?"

"Yes, dear, but each state has its own laws, and the marriage and divorce laws are quite different, you know, in the various states."

"How absurd, in fact how utterly impossible is such a state of things! After we are married, darling, and you become a subject of our gracious Queen, then you can forget all that rubbish."

"I'm sure I don't know why," she quickly replied, with a touch of stiffness in her manner, "I don't see but that you have the same sort of rubbish, as you call it, in her majesty's dominions, if I am rightly informed. You have free trade in Great Britain and a protective tariff in Canada, under the same crown; and a man may not marry his deceased wife's sister in England, but he may lawfully do so in Australia. And as for being a subject of Queen Victoria, much as I respect her, I am queen on this island, and here and everywhere a Yankee."

I found I was treading on dangerous ground for a man who had on hand the winning of such a capricious treasure as a lady's heart. Her allusion to the question of a deceased wife's sister made me wince, for it was a point on which I was especially sensitive, so I hastily replied, "Oh, of course, darling, I was only joking; I sincerely beg your pardon for such unseasonable attempts at humor. for the matter relating to marrying a deceased wife's sister, I quite agree with you that it is indeed a sad business, altogether disgraceful to our government; early and late have I exerted myself to have the present colonial laws abolished relating to this question, in order that there may be entire uniformity throughout the British Empire. No subject of our gracious Queen should be permitted to offer homage to her after transgressing the laws of God and the weal of society by marrying the sister of his deceased partner." I found myself forgetting that I was not once more in Parliament

addressing the Commons on a subject in the discussion of which I flattered myself that I had won distinction. "Yes, Miss Oakhurst—"

I felt her arm tremble, and looking into her face, I saw a demure smile in her eyes, by the moonlight. "What is it that amuses you, darling?" I inquired, slightly nettled.

"Oh, nothing much, dear, except that my name is not Oakhurst."

"Not Oakhurst! great heavens! what is it then?" I asked, bristling with all the natural horror of a true Briton when he thinks he has been deceived, and especially when he fancies that the identity of the person with whom he has held friendly relations, and that too, without an introduction, has been deliberately misrepresented. "Who, who then are you, Miss, Miss—if I may have the boldness to inquire?"

"My name is Virginia Dennison."

"Indeed! how is it then that you gave me to understand that your name was Oakhurst, Juliana Oakhurst?"

"I never told you so, sir."

"I am sure—" and then I stopped with a flush in my cheeks, conscious that I was not furthering my matrimonial prospects by the turn the conversation was taking. While the lady, with admirable sangfroid, continued, "I will tell you how you got the impression as to my name; it was from the name written on my trunk. You must know that as I was about to sail my own trunk was unexpectedly

broken, and, there being no time before the sailing of the ship to obtain another one, I took that of a friend of mine, a charming girl whom I should so like to introduce to your acquaintance, if you would only permit me."

I did not think fit to notice the touch of irony at the close of her remark, but preferred instead to seek to steal a kiss from her lips, which she pretended to resent in a manner so bewitching that I was fast beginning to lose my senses. She interrupted this tender interlude by confounding me with another statement that was qualified to drive me wild. "I have something else to tell you; you are for this evening my father confessor, and since you are so particular to know all about me, I must confess that my original name is not Dennison at all."

"Wha—a—a at!" I cried, releasing her arms and facing her in the moonlight, "Not Dennison!"

"No, and yes; yes, and no; Dennison is my adoptive name; my name in infancy was Arabella Findlay. I was adopted by a wealthy widow lady of that name who took a fancy to me, carried me to America, and——"

"Stop, one moment please," I gasped, with cold beads of perspiration starting on my brow. "You say your name is Findlay; did you ever have a sister?"

"Yes, I did, but I have not seen her since child-hood."

[&]quot;Her name was---?"

" Honora."

"Honora," I screamed, "that was my dear deceased wife, and you, you are her sister!"

We both realized what a chasm seemed to open between us. It was, of course, an immense relief to have such assurance of her family respectability; yet on the other hand, was not she, whom I was on the point of wedding, the sister of my deceased wife. It was evident that under the circumstances no good could follow by continuing our interview at this time, so with a quiet pressure of the hand, I left her at the door of her cave, and sadly and slowly walked back to my tent, where I passed one of the most miserable nights that ever fell to the lot of man.

Brightly the morrow's sun dawned on the island. After a disturbed rest I lay half awake in a quiescent mood until a recollection of the events of the previous evening smote me like a knife, and instantly I became fully aroused. I was in one of the most remarkable predicaments which could befall an intelligent and conscientious being. On the one hand, I could not reason myself into believing that I should be committing a sin in marrying the lady of my choice. There was not the remotest blood relationship between us; we had met as strangers, and the attraction which drew us together suggested no twinge of conscience, nor any protest whatever in my nature; while to repudiate her now seemed a violation of the dictates of honor and the truest instincts of my nature; my whole soul revolted against the idea of such an event being possible.

But on the other hand, my record as an advocate, nay, a violent partisan of the very law which forbade me to marry her, and as a fanatical member of the Church which sternly forbids such a union, stared me full in the face and caused me to blush at the thought of abjectly retreating from the strong position I had always held on this question. I realized now the radical difficulty that lies against the action of many human laws, the weakness that inheres in much of our legislation. I saw as never before that in making laws we are too liable to proceed on Utopian lines, led by well meaning but impractical theorists who legislate on what might be, but not on things as they are: also that by failing to put ourselves into the place of others, we lay down unyielding formulas for the application of the principles of right and wrong, without sufficiently regarding modifying circumstances; by constantly increasing legislative enactments for regulating the rules of life, we really add to the burdens of existence without gaining sufficient compensating advantages; for in proportion as man is hampered beyond the regulations imperative for the protection of society, do we increase his liability to temptation, and hence his greater disregard for law and pari passu a greater retribution here and hereafter.

The absurdity or inexpediency and impracticability of this law was yet further apparent to me now, when I reflected that I had repeatedly asso-

ciated on friendly and social terms with gentlemen and ladies who made no concealment of the fact that they were transgressing against a law which was upheld by all the machinery of the Church of England. And yet I had treated them with the same consideration I extended to other reputable members of society. The reason was not difficult to seek; they were members of other Christian ecclesiastical bodies of our colonies, who scorned to add this restriction to the welfare of society. It was evident that this was purely a religious and not a civil question, and yet the tendency of the age is clearly to make a marriage a civil suit. If the marriage of a deceased wife's sister were actually the crime I had maintained it to be, how was it possible for me to recognize these brethren of sister churches as upright members of society or Christianity. The fact that I had done so was practically a proof that my precious theories on the subject were Utopian, untenable, inconsistent, illogical and unchristian.

All day I reasoned thus with myself. Convinced that the manly course for me was to abandon a position which a practical test showed to be impossible, I yet hesitated to yield, owing to the pride that often leads a man to resist a conviction that he is in the wrong. Like many in such a dilemma I decided on a middle course; as a Churchman I could not abandon what is one of the cardinal points to which the Anglican bishops are irrevocably committed; but I could become a Presbyterian,

a member of a sect which we generally although reluctantly recognize as orthodox in doctrine, although unsound regarding the forms of religious expression. A man may change his sect without the charge of inconsistency, but he can not evade the ordinances of the sect to which he actually belongs without being inconsistent. I could then become a member of one branch of the Presbyterian Church, all Presbyterians not being agreed on this tremendous question, marry my deceased wife's sister, and still be consistent with my conscience. It is astonishing how clearly one sees when he escapes from the cobwebs and dust of his study and takes hold of practical questions in a practical way. If our bishops in their well ordered studies surrounded by smooth shaven grass plots in sleepy aristocratic cathedral towns; if our professors and theologians who indite polemic pamphlets and folios in academic bowers of contemplative ease; could go forth and grapple with the great questions of life and destiny as men in active pursuits must and do meet them, how many a fine-spun theory, how many a procrustean law would be swept away and forgotten like the mists before a stormy wind of the stormy sea.

At the same time I would not be understood as passing sweeping condemnation against organizations and sects. On the contrary, so long as it is difficult or impossible to have one law, one religion, one society, suited to all the contingencies of life or to all the types and characters of our race, such

divisions are essential in order to enable the individual to tide over the difficulties of his position in this world without jeopardizing more than he now does his prospects in a future existence. As a Scotchman I could legally marry on this island, while as an Englishman I could not; as a Presbyterian in a colony of which I was the lawmaker, I could marry my deceased wife's sister, while as a Churchman residing in England I could not. It would be difficult for any one to prove that my chances for heaven were reduced by this convenient adaptation of means to ends. Could any system be more beautiful than this which provides a remedy for the imperfections or the arbitrariness of the institutions regulating the condition of man!

I had arrived at these conclusions by the close of the second day and brought myself again to a serene and hopeful state of mind. It was not without some difficulty, however, that I sought once more the presence of the lady of my affections. Although firmly convinced of the correctness and justice of my new position, yet it always requires an effort to make confession and to explain a change of conduct and especially of opinion; and I was not at all certain as to the way in which she would now receive me. But there is no logician like love. They say he laughs at locks and keys, but he does not laugh at logic; rather he makes it a potent ally by the added appliance of earnestness, enthusiasm, and magnetic forces. Reason in the hand of love becomes irresistible.

The little isle seemed larger and fairer after we were married. Together we strolled over our miniature territories, explored every nook, and mapped it out, giving names to every locality, both inland and on the coast. We had our winter and our summer residences, the former being the cave which was improved by the addition of various conveniences, while the latter was composed of the tent, removed to the opposite side of the island on the edge of a grove of cocoa palms that mirrored themselves in the placid waters of a small lagoon. I amused myself by putting up a flagstaff on the highest point of the island, on which the British ensign, which I had saved from the wreck, was daily flung to the breeze in the hope of attracting a passing ship, and also to assert the claims of Great Britain to this remote and apparently undiscovered corner of the globe. With the view of strengthening the validity of our marriage, although I did not choose to disturb my wife by mentioning this reason, I also drew up a code of laws for the guidance of the colony of Nova Anglia, as I called our little island. In this code were prescribed, among other regulations, the various forms of marriage permitted there; which of course included marriage without witnesses. I gave it authorization as governor by the grace of God and, presumptively, by the will of her majesty, Queen Victoria.

I had not been too precipitate in arranging a system of government for Nova Anglia, for the

population was sensibly increased, in fact doubled, before the close of the year by the addition of bouncing twins, a boy and a girl, who arrived at our capital, Victoriopolis, one fine morning, under the auspices of their mother. We celebrated the event by firing a salute with the musket saved from the wreck and opening one of the few remaining bottles of Piper Heidseck supplied from the same source. The municipal authorities being duly notified, this influx of population was carefully recorded. Old Fido showed immense happiness on this occasion, licking the round soft faces of the new comers with such delight that it brought tears to the eyes of the happy mother.

Our happiness seemed complete. It is in such moments the experienced heart learns to look for new perplexities and troubles; for the joys of life seem only given as oases in the desert intended to afford us strength for the next dreary march across a wild and burning waste. When my darling was able to walk with me to our seat by the beach, I carrying a twin on each arm, it was a joyous day for us all. Thither we resorted daily in the late afternoon and discoursed of our home beyond the seas; but not with despair did our thoughts revert thither, for the memory of it was as the memory of dear ones whom we never shall see more in this world, but whose tender, gracious lives still go with us. To the settled feeling that we were to remain on this islet until death should close our eyes, was now added the happiness, and

yet the deep responsibility of training the little immortals confided to our care in this unknown and isolated Eden of the seas.

Yes, they were immortals, and this it was which gave such seriousness to the eyes of their mother as she gazed at them sleeping, locked in each other's arms in the cradle hammock I had swung for them under the palms. She was of a deeply religious nature. In the intellectual circles in which she had once moved, perhaps her mind had become for a time estranged, or rather fascinated, from the stricter paths of religion to listen to the precepts of a broad philosophy proud of its fancied discoveries in the domains of inspiration and thought. But now her feminine instincts reasserted themselves and her religious nature assumed a fervor bordering on superstition. Better, however, a devotee than a sceptic in petticoats! The affections may continue to move a woman's heart in the former case, but beware of the love of her whose heart is wholly without faith! She was a member of the Church, that is, of course, in the exclusive sense in which it is used by the members of the Protestant Episcopal sect. As she belonged to the American branch and not the Anglican body, this had not prevented her from acquiescing in marrying her brother-in-law. But, on the other hand she, with many American Church people, was attached to the extreme ritualistic wing, which not only believes in choir-boys and in priests prostrated in the form of a cross at Easter, and other crucial solemnities and tests of faith, but also in the supreme efficacy of baptism as a means of salvation. It was this strong belief in the necessity of this rite that added to her seriousness as she reflected on the destiny of the precious souls entrusted to her by a mysterious providence. I confess that I was also not without uneasiness on the question of this salvation, for many members of the Presbyterian body, to which I now belonged, hold opinions not at all reassuring as to the welfare of unconverted infants.

"What can we do, my dear?" said she one day to me. "How are we to settle about the baptism of our dear children? do you not see any way by which it can be done? It seems so dreadful for them to grow up unbaptized; I can not bear to think of it."

"We must trust that all will be well; we can do nothing about it but pray for them and be resigned. How would it do, however, for me to read over them the baptismal service out of the prayer-book?"

"It would never do, I fear. Not only are you simply a layman, but you are not even a Churchman now."

A sudden thought came to my aid. "What you say is quite true; but dearest, let me ask you a question. You believe that there are those of other sects besides Episcopalians who will be saved?" As she hesitated, I continued, "You do not think that believing and consistent members of the Presbyterian Church will be lost?"

"Of course not you, my poor darling."

"And you believe that your dear friend Eliza, of whom you so often speak, who was a Methodist, and your adoptive mother, who was a Baptist, will be saved?"

"Oh, yes, yes, I would as soon doubt my own faith as theirs, and perhaps sooner."

"Very well. Now let us look at the question on this line of argument. If you admit the salvation of one Baptist, you must admit that of others leading equally consistent and Christian lives." She did not dispute this and I continued: "Now then, if we grant that Baptists may be saved, if leading christian lives, no less than Episcopalians, then it is a question of outward forms and ceremonies rather than of essentials as between the merits of the two creeds. This being so, it becomes a serious question whether we should not adopt a sect which can relieve us under present circumstances of some of the anxieties which are disturbing us. Baptists defer the entire question of baptism to adult life, very sensibly as appears to me, leaving it to the choice of the mature judgment and relieving parents of all responsibility on that score. Of course I could under no circumstances have any sympathy with the narrow brains of those mediæval owls, the close communion Baptists. Now then, what I have to propose, my dear wife, is that we both accept the general doctrines of the Baptist persuasion. As we have seen, we do not thereby reduce our hopes of heaven, while we certainly do reduce the perplexities of our present situation. I, for one, shall become a Baptist; you, my dear wife, may think it over; but I am sure you will eventually come to the same conclusion. Indeed I feel that in making this change I have one more opportunity for feeling grateful for the beneficent provision which by ordaining different sects and forms of belief enables me under altered circumstances to suit my beliefs to those circumstances without abandoning the essentials which underlie true religion."

To my surprise I must confess, but also to my immense gratification, my dear wife placed her hand in mine and in a sweet low voice said, "Whither thou goest, I will go; and where thou lodgest, I will lodge; thy people shall be my people, and thy God my God."

Thus had we in a most remarkable and at the same time satisfactory way succeeded in escaping from a difficulty that threatened to cast a shadow over the happiness of our little home.

The months and years went by. We were resigned to our destiny and yet did not altogether abandon hope of again seeing our far away home beyond the sea. Perhaps my wife and I might have been better reconciled to remaining on the island but for our children. Still we did not pass the time in repining. Once a month I kindled a large fire on the beach as a signal to passing ships. Our supply of rockets I husbanded for more rare occasions. On the birthday of the Queen, on the fourth of July, and on the anniversary of our wedding, I

always sent up rockets at intervals of five minutes, both to please the children and to serve as possible signals.

Four years had gone by since our marriage. It was our fourth anniversary. The sky was serene, the winds were hushed and the sea was calm. Leading our little girl, I directed my steps to our signal hill while my companion walked at my side holding the hand of our little boy, and poor faithful Fido trotted slowly behind, for he was now growing old. I carried with me a bunch of rockets and sent up two of these fiery meteors to the delight of the twins but the terror of Fido. I was about to start a third of these fiery messengers when far away in the mysterious gloom of the offing we suddenly beheld a rocket go up in reply and drop its cluster of golden stars silently to the water. "See, see, papa!" cried the little ones, clapping their tiny hands with glee, while my wife clasped my arm with both hands, trembling violently with the intense excitement of that moment terrible with rapture, with anxiety, with suspense. I could not utter a word, the tears fell from my eyes like rain. Eight years had I waited and looked and prayed for that sign. But my presence of mind did not forsake me. Immediately I touched off another rocket, and to my inexpressible joy it was again answered; this time, as I fancied, at a slightly reduced distance. The sight of that second rocket answering my signal was too much for my feelings. I dropped on my knees and with quivering lips gave fervent thanks. I then

ran to our store-house for a fresh supply of rockets, our last as it proved. I continued sending them up at intervals and had the gratification of seeing the answering signal repeated. It then occurred to methat the crew of the approaching vessel, hitherto ignorant, perhaps, of the existence of this island and imagining the rockets to proceed from a ship in distress might incautiously approach too near the outlying reefs. It took but a moment to collect a heap of dry leaves and brush, which I kindled at various points on the beach. In the meantime my wife put the children to bed, leaving them in the care of Fido. It is safe to say that neither of us slept a wink that night, the long night that so slowly faded into the golden dawn.

As soon as it became light enough to discern objects at a distance we discovered a steamer at anchor one mile from shore. In half an hour we saw a boat put off for the island. By waving a white cloth I was able to guide them to a smooth beach and soon heard in English the coxswain's welcome words, "Way enough!" as the crew tossed their oars and the keel grated on the sand. The scene was one better imagined than described. The captain offered us a free passage home and kindly promised to wait a few hours while we made our little preparations for departure from a spot which, now that the time came for leaving it forever, was yet not left without some lingering regret. It was best that we should go, and yet we looked with a certain dread at the possibilities opening before us as we considered the active, bewildering life we were about to re-enter.

Hurriedly we visited together each well-known haunt, endeared by so many tender associations, and gathered a few mementoes to carry away with us. We were about ready to embark when we missed Fido, who had been ailing for several days. Diligent search being made, for we could not bear to leave him behind, the poor old dog was found near the cave, dying. The excitement of seeing so many strangers had evidently overtaxed his failing strength. He tried to wag his tail, and licked the little girl's tiny hand with his last gasp. We buried him by the cave, with a headstone on which I rudely engraved the words: "Fido, Faithful." The children wept convulsively that they could not take him in the boat to which we were now hurried. Soon we were on board a stout ship; at the word of command the anchor came up, and we were heading for home, our hearts moved by emotions I leave the reader to imagine.

Elegant as were the cabins and the comfortable staterooms placed at our disposal, it was difficult after our long out-of-door life to remain below. We wanted constantly to be on deck. The twins, with their brown faces, the picture of health, their artless prattle and innocent ways, at once attracted the attention of the ladies, who insisted on petting them and asking them manifold questions about our life on the island. The details of our extraordinary

experience, of course, aroused the deepest interest. But I could not avoid noticing a marked coolness in the deportment of the ladies toward my wife, as they learned piecemeal the circumstances of our marriage. On my own account I did not feel it necessary to take notice of such narrow and unamiable behavior, but as I could not bear to have the slightest imputation cast on one who was indeed part of myself, I felt it necessary to take an early opportunity of stating the facts to the captain. As a man he was able to take a much broader and less prejudiced view of the case than they, and he privately gave out to the other passengers that he should not permit any rudeness toward us, since we had married by contract and prayer-book, and were as legally married as ever were man and wife.

In due time we arrived at the Thames and exchanged our lonely estates in Nova Anglica for the vast maelstrom of London. I placed myself in communication with my family and ere long we were whirling by rail to my estates in Scotland. The news of my return created a great sensation in that district. This, together with my former popularity, encouraged me to again stand for Parliament at the next hustings and I was triumphantly elected.

In the course of the ensuing session at Westminster the old, old question of abolishing the law against marrying a deceased wife's sister, came up for consideration and for probable defeat, owing to the barnacles called Lords Spiritual who sometimes cling to the ship of state in such wise as to impede its progress. To the astonishment of those who remembered my former views on this subject, but who were unaware of the circumstances attending my second marriage, I ranged myself on the side of members who favored the bill. My remarks were at first listened to with cries of "hear, hear!" As I proceeded shouts of derision were flung at me by the opposition, who mocked what they were pleased to call my inconsistency and my treason to party. Various other pleasant methods were employed for interrupting and disconcerting me peculiar to deliberative assemblies, and not unknown to the House of Commons.

Stimulated rather than daunted by these efforts to crush free speech and free opinion, I launched forth into the following burst of feeling which I take the liberty to quote here from the records of the reporters: "Yes, if to change my opinions and to have the courage to avow it be inconsistency, then am I inconsistent. But is it not more noble to change when one finds that he is wrong than as a hypocrite and a coward to appear to maintain principles and opinions he no longer accepts in his heart! As for the question now before the house, marriage with a deceased wife's sister, I regard this only as an occasion for offering the opportunity to express an entire departure on my part from a system of which this question is merely an excrescence, a symptom of a disease that is permeating our entire religious and civil polity.

have too many forms and tests of faith in our churches, too many laws and restrictions in our codes. There is too much effort expended to hound men into heaven, while every sect has its own special shibboleth of admittance to the golden gates. Non-essentials have completely hidden essentials; I repeat, the spirit of religion and of law is lost in cold, non-essential forms and regulations. Take away the sectarian forms which smother the essence of religion, and men will yet not miss of seeing God; leave more to the discretion, the good sense, the intelligence, the right-feeling of men in the conduct of life, and burden them less with trifling and sumptuary laws, and society will be nobler and happier even if we do thereby reduce the number of clients for the lawyers. The day is coming, if it has not yet come, when the puerilities of our creeds and our codes will strike men dumb with amazement that good men should ever have sought to rivet such needless chains around the free action of the soul, or permitted themselves to be so bound. We shall learn how to distinguish the essential from the non-essential, the kernel from the husk; the soul shall be fed and sustained with wheat instead of chaff. The golden rule shall efface half the laws in our codes; men shall cease for trifles to sit in judgment on their fellow-men, and charity shall not be a word to be differently interpreted or applied by conventional sectarian rules, but a living principle everywhere producing the same beneficent results.

In view of such grand aims, such magnificent results, is it not the most contemptible quibbling, nay, criminal trifling, for us to hamper our fellow pilgrims on this solemn journey to the country where we must all finally meet, by such non-essential quiddities as ritualisms, as baptisms, as candles, as forms of prayer, or the last absurdity, raked forth from the musty caverns of antediluvian ignorance and intolerance, the question as to whether an intelligent man, a sincere Christian and an orderly citizen shall contract marriage with the sister of his deceased wife?"

THE EVOLUTION OF THE AMERICAN YACHT.

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IT is an interesting circumstance that examples of what was probably the first distinctively American craft may still be seen occasionally. The name of the pink or pinkie was derived from the Dutch, probably at a remote period. The model was perhaps suggested by the quaint hookers of the Scheldt, although it is far more graceful; and it is a noteworthy fact that a very large proportion of the marine terms employed in the English language are from the Dutch. The American pink was invented for the cod-fisheries; it was at first pointed at both ends, with raking stern-post, was from five to twenty tons burden, and was rigged with two fore-and-aft sails. Afterward, a bowsprit and cut-water were added. These pinkies are highly picturesque and seaworthy, but have been gradually superseded by the broad-stern fishing-schooners of Gloucester and Essex. But antique examples of this curious craft are still to be seen creeping in and out about the little sleepy ports down east, or laying their rusty sides on the oozy flats left by the

tide. They are most common in the waters about Eastport, especially in the herring-fisheries.

The year 1713 was a great era in American naval annals. In that year Captain Andrew Robinson built the first schooner ever seen. This was at Gloucester. As she glided into the water, a by-stander cried: "Look how she schoons!" Catching at the word, Captain Robinson replied: "A schooner let her be!" The new rig came at once into wide acceptance. Only eight years later an old chronicler, Dr. Moses Prince, wrote of Captain Robinson: "This gentleman was first contriver of schooners, and built the first of that sort about eight years since; and the use now made of them, being so much known, has convinced the world of their convenience over other vessels, and shows how mankind is obliged to this gentleman for his knowledge." This is by no means the only instance of the adoption of American marine inventions by other nations. Captain Howe's patent for double top-sails, for example, is now universally employed in square-rigged vessels.

The fore and aft sails of the schooner are really a division of the sails of the sloop; and the sloop-rig, if analyzed to its square root, is evolved from the lateen-sail of the Mediterranean, cut into a mainsail and jib. When properly shaped these two sails present one three-cornered sail divided near the middle by the mast, exactly where the yard of a lateen-sail would hang to the traveler on the mast. Subsequent modifications naturally suggested the cutter by dividing the jib in two, and Captain Robinson, as we have seen, divided the mainsail, and added a mast, and the result was a two-masted. fore and aft schooner. During the last twenty years the schooner's mainsail has in turn been divided, a third mast has been added, and the result has been the three-masted schooner. Each of these modifications has been suggested with the idea of facilitating the handling of the sails, while the principles involved continue the same in each. A fore and aft vessel sails several points nearer to the wind than a square-rigged ship, hence a decided advantage in one of the most valuable features of a ship when sails are the motive power. This, of course, is of vital importance in coasters obliged to beat up narrow estuaries, or in yachts intended for racing.

Exactly when the schooner had square top-sails added to her rig it is difficult to ascertain, but one and two-top-sail schooners were at one time much in vogue. The square top-sails, however, have been discarded in this rig for many years in America, although the top-sail schooner-a very jaunty rig it is-continues to be a favorite in Europe. The Wanderer is the only top-sail schooner yacht now flying the American flag.

After the invention of the schooner there seems to have been no essential difference between English and American ships for nearly a century. The Constitution, built by Humphry in 1788, had the falling in topsides of foreign frigates, but in less

degree, great breadth on the load line, a straight keel, and full bow, characteristics of sea-going vessels at that time.

But a new era in the modeling of vessels on this side of the Atlantic began soon after the opening of this century; to this we were indebted very largely for the success of the War of 1812, for the great activity of our commercial marine until the breaking out of the late civil war, and for the frequent trophies carried off by our leading yachts. Almost simultaneously, a group of master builders appeared, whose united talents and efforts brought about this revolution in the principles of ship-construction. We think it is no overstatement to say that to no one are we more indebted for this result than to Henry Eckford, who was born in 1775, the year of the Declaration of Independence. At sixteen, in the ship-yards of his uncle, Mr. John Black, at Quebec, he commenced a study of the pursuit in which he was to gain such distinction. At the early age of twentyone, Mr. Eckford settled in New York, and by his original and scientific methods at once obtained recognition and abundant employment. His careful system of study is well described by his biographer. "Upon the return of one of his vessels from a voyage, he obtained by a series of questions from her commander an accurate estimate of her properties under all the casualties of navigation. This, connected with her form, enabled him to execute his judgment upon the next vessel to be

built. In this way he proceeded, successively improving the shape of each, until those constructed by him, or after his models, firmly established the character of New York built ships over those of any other port in the Union. Fashioned after his models our vessels gradually dispensed with their large and low stern frames, the details of their rigging underwent extensive changes, and in the important particulars of stability, speed, and capacity, they soon far surpassed their rivals" One of Eckford's greatest feats was the construction of the sloop-of-war Madison, of twenty-four guns, in the most primitive of navy-yards on Lake Erie, in just forty days after the timber of which she was made was cut in the forest. Cooper, in his "Naval History of the United States," says: "Henry Eckford was undoubtedly a man of genius. His professional qualities proved to be of the highest order." The line-of-battle ship, Ohio, generally considered to be the finest sailing ship-of-war we have ever had, was built by Eckford, and may still be seen lying at the Charlestown navy-yard. He subsequently built a frigate for the Turkish navy, and accepted an offer to superintend the navy yards of that government. But after building one line-of-battle ship at Constantinople he died there suddenly. The influence of his genius was such, however, that all the Turkish men-of war built for years after that were after his models and rig, presenting, in that respect, a striking contrast to the fleets of other nations,

with their bluff bows and topsides tumbling home.

Another important feature of this period of American naval construction was the invention and development of the famous Baltimore clipper. Already the maritime enterprise of this noted port had been distinguished by the famous voyages of such armed merchant ships as the Leila and Argyle in the latter part of the eighteenth century. The Baltimore clipper appeared by gradual evolution in the early part of this century, and was intended originally as a model for a ship that would be advantageous in eluding the British cruisers in the West Indies, who were in the habit of boarding our vessels, and taking away such of the crew as were English citizens. Another cause for the origin of these clippers was the pirates swarming in those waters, and also, the design of stimulating the importation of African slaves. Their origin seems to have been suggested in part, at least, by Commodore Daniels, who was at one time connected with the natives of the South American states, and made a name as a ship-builder. Caleb Goodwin was also one of the ship-builders who distinguished himself at the time in winning fame for the fast ships of Baltimore. These clippers were doubtless due to a study of Spanish, and especially Genoese models. The Latin races, while inferior to the English as sailors and navigators, have, until this age, shown greater skill in the successful application of the principles involved in the designing of ships. Suggestions may likewise have been obtained from the small craft of the Channel and Bermuda Isles. When full fledged the Baltimore clipper was a ship with a low free-board, broad of beam before the centre, having a flaring bow above, but sharp at the water line, and with a deep draught aft, or what is called a long leg, a slightly raking sternpost, and a clean run. They were rigged as schooners and more rarely as brigs, and were heavily sparred, while the masts raked to such a degree that a line dropped plumb from the maintruck would nearly or quite touch the taffrail. These lines gave at once a dry deck, stability and sail-carrying power.

When the War of 1812 broke out, the superior qualities of the Baltimore clipper at once became apparent. The Atlantic was swept by these hardy little cruisers, who contributed more to uphold the honor of the stars and stripes than any other element in the war. This fact was fully appreciated by the enemy. Said Captain Wise, of H. M. frigate Granicus, to Captain Coggeshall, one of our successful privateersmen, but at that time a prisoner to the English: "Coggeshall, you Americans are a singular people, as respects seamanship and enterprise. In England we can not build such vessels as your Baltimore clippers. We have no such models, and even if we had them, they would be of no service to us, for we never could sail them as you do. We have now and then taken some of your schooners with our fast-sailing frigates. They

have sometimes caught one of them under their lee in a heavy gale of wind, by out-carrying them. Then, again, we have taken a few with our boats in calm weather. We are afraid of their long masts and heavy spars, and soon cut down and reduce them to our standing. We strengthen them, put up bulwarks, etc., after which they lose their sailing qualities, and are of no further service as cruisers."

The Baltimore clipper was the parent of several types of vessels. The famous oyster pungies of the Chesapeake are allied to it, but the latest phase of this form is the Baltimore buckeye. It is long and low, has a raking sternpost, and the greatest beam in the fore section, while the masts have the rake of the old-time clippers. The sails are triangular in shape. But their most remarkable feature, which seems to suggest the Genoese influences already alluded to, is the long, beak-like cut-water, flanked by broad breast-plates at the knight-heads in which the hawse-holes look like eyes. By all odds, the most foreign-looking craft in American waters, they are very good sailers, especially on a wind.

Another modification of the Baltimore clipper was developed in our pilot-boats, which, little by little, assumed the type represented by the *George Steers* and *Mary Taylor*, famous little schooners designed by George Steers in 1845—a type which continues to be followed, with little variation, in this service even now, after a lapse of forty years.

They have a keel sloping up to the fore-foot, deep draft, a sharp floor, and a sheer both at stem and stern which makes them buoyant and dry in a sea-way.

About the year of 1844 began the most important era in the history of American ship-building. Our Liverpool packets had already demonstrated the capabilities of our builders and mariners. The Canada, for example, under the command of Captain Seth G. Macy, made her trips almost with the regularity of a steamer. Fourteen to sixteen days was the average length of her voyages between the two ports. This may have been an extreme case, but the fact remains that these "liners" made a remarkable record. They carried double crews, that being before the great labor-saving invention of double top-sails. The quarter-masters or steerers had their quarters aft, and the reefs in the topsails were shaken out whenever the wind lulled; thus the "liner," in a gale, would often walk past ships which could not make sail or take it in fast enough.

Those were the days when the Webbs, the Livingstons, the Browns and the Bells, the Claghorns, the Eldridges, the Fullers, the Lawrences, and other excellent artisans of New York, Salem, Boston or Philadelphia, were in their prime. The increasing importance of the East India trade—especially the tea trade—a few years before the general adoption of the propeller in steamships, and the rush to California after its cession to the

United States and the discovery of gold, induced the construction of the famous clipper which carried the development of sailing ships to the highest point of excellence yet reached in the history of naval architecture. Without mooting the question about the respective merits of the noted Aberdeen clippers and the American ships which, during a period of perhaps fifteen years, circled the globe with their vast expanse of canvas, it is not too strong a statement to say that some of the runs made by our ships at that time have never been surpassed by either sail or steam, until within the last two years. The great builder of packets, Isaac Webb, died in 1843. Donald McKay, a native of Nova Scotia, who removed in youth to Newburyport and made a name there and in Boston, began, at the same time, to win a world-wide reputation for clipper ships of a size and speed hitherto unexampled. Many competitors appeared at the same time. The ship James Baines, built by McKay ran 420 miles in 24 hours. The ship Red Jacket, built at Rockland, Main, ran 2280 miles in 7 days, or 325 miles per diem, for a week. The Flying Cloud, McKay's most celebrated ship, once made 374 knots, or 433 miles in 24 hours, and 25 minutes, equal to 17.17 miles an hour. To appreciate these distances, compare them with the greatest distance ever made in 24 hours by a Liverpool steamer up to the year 1884, the now celebrated Alaska, in the fastest westward passage until then accomplished from Liverpool to New York. Her greatest run

was 419 miles in 24 hours. This proves what all sailors know, but of what few landsmen are aware—that, with a strong and steady favoring wind, it is still possible for a sailing-ship to equal the speed of an Atlantic steamship. The difficulty lies not in the ability of the ships, but in the fact that the wind is unsteady.

These American clippers were a modification of the Baltimore clipper, with less beam, a slightly flaring bow, a long, sharp, hollow entrance, suggesting the wave line, and the greatest beam about amidships on the load line. Although heavily sparred, their masts were generally proportionately lower than in the ships which they succeeded, and the yards were longer, giving a large but low spread of canvas. This type of ship may be said to have culminated in the Great Republic, built by Donald McKay in 1855. She registered 4300 tons, and carried four masts. A peculiarity of this noble ship was her rising keel, which for a length of sixty feet, sloped up toward the stem. A similar feature can be observed in the sheer plan of the famous yacht Maria.

At the same time that the American merchant clipper was entering upon its brief but glorious career, evidences of activity in another department of marine architecture became apparent, which, with various alternations, have continued to the present time, and are now attracting more general interest than ever before. I refer to the development of the American yacht. The Romans

had numerous pleasure vessels, but there is no reason to suppose they were intended for anything more than floating barges. The Greeks, the Venetians, and other southern people also had their pleasure ships, but the Dutch and the English were the first who are recorded as enjoying yachting for the exercise it gives to the manly virtues, making it at once a vigorous pastime and a school for seamen. A yacht was built in 1604 for Henry, eldest son of James I. Pepys in his diary has much to say of a Dutch sailing yacht called the Bezan, presented by the Dutch to King Charles I. in 1661. Pepys had the instincts of a genuine yachtsman, for he not only enjoyed the excitement of a sail in a stiff breeze, but also the snug comfort of a cozy cabin with attractive companions and books. Further on he says: "A yacht was built to beat the Bezan, by our virtuosos, with the help of Commissioner Pett," a feat in which she succeeded in an exciting race to which Pepys briefly alludes. This is the first match race on record in the annals of yachting.

The first organization that gave distinct encouragement to yachting was, however, not established until 1815. It was founded at Cowes and was called "The Royal Yacht Squadron." It was followed in 1820 by the Royal Cork, which, however, as the Water Club, had existed since 1720. Yachting began in America in an informal way early in this century. It is an interesting fact that there is an American yacht still in

commission, whose fame was made in 1819. Originally intended for a Baltimore pungie, she was turned into a schooner-yacht and called the Hornet. In 1847 she was completely repaired, and again in 1850 and 1855 she was overhauled and altered by George Steers, and called the Sport. She now belongs to the Hull Yacht Club, and possesses some excellent sailing qualities. In 1879 she was lengthened and rebuilt. In 1836 the Wave was modeled by Stevens and built by Brown & Bell. The Sylphischooner was the crack yacht in Boston in 1835. But she was beaten by the Wave in a thrash to windward off Nantucket Shoals. This seems to have been the first race of American yachts of which there is any positive record. The interest in this sport was gaining, and in 1838 a number of saucy little craft acquired a name for themselves; among them were the Mohamet, Dream, Raven and Breeze. The latter was fast, beating to windward, and was originally an oyster-boat. But no regular yachting organization was formed in America until 1844, when the New York Yacht Club was founded, with a membership of nine members and nine yachts. The first regatta in America was sailed July 17, 1845; the Cygnet was the winner. All the yachts of that period had a strong rake to the masts. Their canvas was confined to lower sails, excepting sometimes a small jib-headed main-gaft top-sail in the schooners. The head of these sails had very little slant, being about parallel with the booms.

Robert Livingston Stevens was the most distinguished of a family of inventors, who are identified with the progress of ship and steam navigation in America. He was possessed of extraordinary mental activity. But for none of his inventions will he be longer remembered than as the designer of the famous sloop-yacht Maria, whose exploits mark an era in American ship-building and yachting. She was built at Hoboken in 1844 by Mr. Capes, after Stevens's plans. She was one hundred and ten feet over all, with a beam of twenty-six feet, eight inches. Her draft aft was five feet, three inches, decreasing forward to a minimum of six inches under the fore-foot. The main-boom was ninety-five feet long and three feet in diameter, and hollow, being constructed of doweled white-pine staves, strengthened by iron hoops and trusses of iron rods. The foot of her mainsail measured ninety-two feet, and of her jib seventy feet, the latter being laced to a boom. The model of the Maria was suggested by the low, broad, almost flat-bottomed sloops employed to steal over the shallows of the Hudson and the Sound-vessels depending on beam rather than on ballast for stability, and imitated by many of our coasters, which are so stiff that they sometimes run down the coast without either cargo or ballast. Though having a flat floor with only moderate dead rise, the lines of the Maria were much finer; she had a long, hollow bow, and was so sharp that the extreme point of the stem had to be widened where the bowsprit

entered the hull. The deck plan was not unlike an elongated flat-iron, as she was very broad aft, tapering off only moderately from the greatest beam to the broad and somewhat heavy stern.

The model of the Maria has since then been generally followed by small centre-board sloops in New York waters and along the Sound, and on the Merrimac, although never to the same extreme degree. Two features gave especial significance to this extraordinary yacht. One of these was her double centre-board. The principle of the centreboard was not strictly new, Captain Schank of the Royal Navy having used one in Boston when the British fleet was stationed there; but its general adoption in American waters makes it practically a cis-Atlantic invention. It is an evolution from the lee-board, such as the Dutch have used several centuries on the broad, bluff sloops floating on the canals of Holland. The lee-board can be seen in the pictures of Vander Velde. After the Dutch settled on Manhattan Island they borrowed the rig of the down-east pinks for the boats which plied in New York Bay, and gave them a lee-board. The name of this peculiarly American craft was taken from the Caribs of the West Indies, brought thence by some hurricane-beaten buccaneer, and thus we had the pirogue. It was as a barefoot lad, sailing a pirogue for a ferry-boat between Staten Island and New York, that the late Commodore Vanderbilt began his wonderful career. Pirogues without the lee-board are still used on the Lakes.

Mr. Stevens fitted the Maria with two centreboards. The forward one drew twenty feet of water when down, and was weighted with lead. Nicely adjusted springs enabled it to rise easily and rapidly in case it touched the ground. When housed it rose several feet above the deck, and had the slots cut to fit the deck beams. The afterboard was intended to aid in steering her when running free, as she griped and yawed. She was steered by a long tiller, but since that time the steering-wheel has come into general use in American yachts; even little sloops of not more than twenty-two feet length are now to be seen with a wheel. Several neat inventions are in use for this purpose. A wheel is doubtless more advantageous in steering free for our broad shallow yachts than a tiller.

Another peculiarity of the *Maria* was the massive india-rubber compressor on the traveler, to break the strain of the main-boom on the sheet in jibing. This is probably the first time rubber was ever employed for this purpose. Since then it has been used to ease the bitter end of a fishing schooner's cable when riding in a gale, at the head of fore-top-mast stays, and even for the lanyards of wire shrouds. The other marked feature of the *Maria* which was not sufficiently considered at the time, but is deserving of emphatic attention now in view of recent developments in English yacht construction, was the outside lead ballast she carried. Iron ballast

on the keel has been for some time not uncommon in the smaller New England yachts, but the use of outside lead ballast by the *Maria* thirty-five years ago, even if differently placed than in English cutters, is a remarkable fact. Molds five inches deep were fixed outside on her bottom, carefully shaped to the lines of the floor, for a distance of twenty feet on each side of the keel. Holes were then bored through the skin, and several tons of hot lead were poured into the molds.

Great inventive ability had contributed to the building of the Maria, and her performances justified the expectations of her builder. She was known to log seventeen knots, or over twenty miles, an hour in smooth water. But that was essentially her element. Her extreme shallowness diminished her momentum in a sea-way, notwithstanding the fineness of her lines, and for once she was beaten in a match with the Coquette in October, 1846. The Coquette represented altogether a different type of model, and thus the conflict now raging in yachting circles here regarding the respective merits of deep and shallow vessels was practically settled before many of those now discussing the question were born. The Coquette was a little schooner of only sixty-six feet in length over all. But she drew ten feet of water aft, having a sharp-rising hollow floor and a clean run. She was built by Louis Winde, a Swede, at one time member of the firm of Winde & Clinkard. Mr. Winde evidently borrowed a few ideas on the

subject from the famous pilot-boats of the Scandinavian peninsula. Their resemblance to many of our deep-keel yachts suggests that the Swedish and American yacht-builders were proceeding upon similar lines in applying the principles of naval architecture. It is a noteworthy fact that the America was once beaten by the Swedish yacht Sverige.

Great beam and great depth were the prominent characteristics of the Coquette, aided by iron ballast carried low. Each yacht in her own district had outsailed every thing, and it was therefore as champions hitherto without a rival that the two yachts were matched against each other for a purse of one thousand dollars. Owing to her larger dimensions, aside from her great powers, it seemed to be a foregone conclusion that the Maria would carry off the prize. But the wind was blowing fresh from north-east, obliging the taking in of a reef or two. The boats started from a buoy in Gedney's Channel. On the outward run, going free, the Maria walked away from her rival; but when they came up on the wind, with a heavy chop running, the Coquette not only made up the distance lost, but won by four minutes and forty seconds without time allowance. The Maria was afterward rigged into a schooner, and foundered in the Gulf Stream, being altogether unfitted for cruising in blue water.

While these events were firing the enthusiasm of all true sailors, another great ship-builder was

aiding to give prominence to American seamanship, to stimulate interest in the noble sport of yachting, and to immortalize the American yacht. This was George Steers-a name identified on both continents with the highest achievements of ship-building. He was the son of David Steers, a native of the Isle of Jersey, at one time captain in the British service, and also a designer of ship-models. After he came to the United States he found employment in our navy, and was the first who had charge of the Navy Yard at Washington. George Steers, whose achievements mark an era in American yachting, was a man of genius-not so much, perhaps, in originating new principles, as in seizing the essential points of the various ideas then floating in the air, as it were, and suggested, in more or less degree, in the models of contemporary builders. He harmonized them in a definite and nearly perfect type, which has been followed, with slight modifications or idiosyncrasies, in most American yachts since 1852. George Steers was not so much an inventor as an organizer of principles of naval construction. The famous America exhibited about every principle followed by the American ship-builder, except the centre-board, and that he employed in many of his other yachts, notably the lovely fleet-footed sloopyacht Julia, since then changed into a schooner, and later appearing again as a sloop. To him we may also attribute, perhaps, the perfection of the Vstern, hitherto a very beautiful feature of American

yachts, but now being superseded by the long tapering overhang. The long heel, keel rising forward, long forward section and sharp floor, and full midship section had, it is true, been already employed in the prahus and other vessels of the East Indies, but this did not detract from the merit due the American builders, as they made a new and, doubtless with them original, application of these principles.

George Steers made his first hit with the cat-boat Manhattan. He then produced a number of very able pilot-boats, such as the Mary Taylor and George Steers. The latter was lost on the Jersey shore in a gale of wind, with all on board. The famous America was built for Commodore John C. Stevens, one of the founders of the New York Yacht Club, who was always identified with the encouragement of yachting in America, and to whom it owes more than to almost any other of our vachtsmen, until the advent of General Paine. Wearing a huge, broad-brimmed hat, he might often be seen steering a yacht in the summer breezes of New York Bay. The America was originally undersparred, with raking masts, and was rigged like other American schooner-yachts of the time, with main and fore sails, a single jib whose foot was laced to a boom, and a small main-gaff top-sail. She now carries two topmasts and jib-boom, according to the present fashion with our schooners, and her masts have been stepped with less rake. After the great race when she carried off the trophy of the Queen's Cup, she was owned for a time by Lord de Blaquiere. George Steers also built the steamer Adriatic and the screw frigate Niagara. It may be added here that the family ability for naval construction has been further illustrated by Henry Steers, his nephew, who designed the Idaho, at first a steamer, and afterward a sailing-ship. Under canvas she made the fastest voyage recorded from New York to Rio.

Since the historic race of the America at Cowes, has occurred the ocean race of the Fleetwing, Vesta and Henrietta, in 1867, for a sweepstakes of \$65,000, which was won by the latter, owned by Mr. James Gordon Bennett. In 1870 the Dauntless was beaten by the English schooner Cambria, owned by Mr. Ashbury, in a race to New York. In 1871, the same gentleman brought over the Livonia schooner to race for the Queen's Cup with the New York yachts, and was badly beaten. In 1887 the Dauntless commanded by that veteran seaman, Captain Samuels, raced across the Atlantic with the Coronet, and although coming in second accomplished the extraordinary run of 328 miles in twenty-four hours.

These trans-Atlantic races do not seem to have decided any principle or resulted in any thing else except to keep up the *esprit de corps* of our yachtsmen. But the sport has been pursued with fluctuating although growing interest, as is indicated by the fact that the number of well-established yacht clubs has increased in fourteen years from thirty-

five to seventy-eight, and the American Yacht List for 1887, although incomplete, gives the names of 2,671 sail and steam yachts. Many large and expensive yachts have also been constructed during this period, although the tendency has been rather toward the production of small and inexpensive yachts, to be sailed by amateurs or Corinthian sailors, thus placing an otherwise costly sport within reach of many who have aquatic tastes—a result which can not be too highly commended, as it tends to incline our young men to cultivate their health and develop their energies, besides increasing the number of those on whom our navy could depend in case of foreign complications. This may also be called emphatically the age of the cat-boat, a rig peculiarly American, and requiring for its fullest action a broad and rather full model. The catboats have also become popular in England, where they are called una boats, after the famous Una, built by Robert Fish, of Brooklyn, and taken to England in 1852.

A peculiarly American craft is a flat, open sloop-boat, originally built at Brooklyn, and sometimes called a penny bridge boat. The genuine Penny Bridger averages twenty-eight feet in length, with about twelve feet beam and thirty inches depth. They have hardly any bilge, rising with scarcely a bend to the rail. The mast is about forty-one feet long, and the combined length of the foot of the jib averages seventy feet. A strong outrigger extends five feet from the stern for the mainsheet

block and traveler. They of course have centreboards and carry sand-bags and live ballast. In a race, from twenty to thirty men may be seen hanging on the weather side of a Penny Bridger. A similar racing-boat is also popular on the Delaware at Philadelphia.

Accompanying this condition of affairs has been an impulse to experiment, and to produce models or mechanical conveniences adapted to meet special wants. Those who object to this or that model should remember that the whole process of naval construction is a beautiful example of adaptation of means to ends. As in the truest architecture, or in the human form itself, so every line, whether of hull or sails, in a ship, however pleasing and harmonious to the eye, was first and should be still employed with a distinct purpose of utility.

One of the features of this period in the history of American yachting has been the invention of the sharpie. Originally intended to float among the oyster-beds in the shallows of Long Island Sound, a disposition has been shown to bring it into favor for yachting. It is really the old-fashioned punt greatly enlarged, with finer ends, fitted with centre-board and cabin, an overhanging stern and a rudder attached to a spindle. The original sharpie carries one or two three-cornered sprit-sails. But they have also been rigged as sloops, schooners, and yawls. They are very fast and stiff, and are excellently adapted to the purpose for which they were designed.

The skip-jack is another curious and by no means ungainly craft, evolved out of the sharpie by adding to the latter a rising floor. The advantage of the skip-jack lies in the fact that, while exhibiting respectable sea-going qualities, both as to safety and speed, and almost the same amount of interior space as other yachts, she can be constructed at much less expense, her frame being composed of straight timbers. Of course, the centre-board is an indispensable feature of the skip-jack model. Another peculiar craft occasionally seen in our harbors is the boat made without frame timbers, other than the keel, stem, and stern-posts and fashionpieces. The planking is made of unusual thickness, and the streaks are but two to three inches in width, and bolted together through and through so tightly that calking is unnecessary. A large ship, the New Era, was actually built on this plan at East Boston a few years ago, but did not seem to have strength to resist the strain of heavy freight.

Iron and steel have also been largely introduced here of late years for sailing as well as for steam yachts. The famous cutter-sloop Vindex, launched in 1870, and the sloop Mischief, both designed by Mr. A. Cary Smith, which have won such an excellent record, were among the first to popularize this material for American sailing-yachts. The rival of the Mischief has been the Gracie; she is fast off the wind; but no yacht has ever been altered so frequently. The iron plates of the Vindex are only

three-sixteenths of an inch in thickness. But she is still sound, after sixteen years of use. Her great draft and stability, aided by four tons of lead on her keel, her imposing mast, low free-board, fine lines, jaunty rig, and general capacity, make her still one of the most striking of American yachts. The *Priscilla* and *Volunteer* are also among our prominent metal yachts.

Nothing could be more opposite to the solid qualities of the Vindex than the midge-like "skimmer of the sea" called the catamaran, another recent nautical invention. The principle illustrated in the catamaran was borrowed from the Pacific, where the islanders for ages have sailed in large double canoes, propelled by a triangular sail of matting supported on two light spars of bamboo. But Mr. John B. Herreshoff, of Bristol, Rhode Island, conceived the idea of adopting the doublehull principle in our waters, and first attracted general attention to the subject by the catamaran Amaryllis, which was exhibited at the Centennial. The turbulent waters of the Atlantic are not favorable to a craft which demands great lightness of construction, the hulls requiring to move separately. But Mr. Herreshoff has succeeded in solving the problem so far as regards inside cruising. Each of the hulls is completely decked and has a centre-board and rudder of its own. By a very ingenious contrivance the two rudders can be moved by one tiller. The hulls are joined by traverse beams and galvanized iron rods, trussed,

and so nicely supported with elastic arms and links that each boat is separately swayed by the action of the water. A car, with seats, is firmly attached to the cross bars. The sloop rig is the one adopted in these catamarans. They are generally from thirty to forty feet in length and have become popular for smooth-water sailing. The catamaran can not lie as close to the wind as a swift centreboard sloop, and is slow in staying, but off the wind her speed exceeds that of any other vessei of her size afloat. The great stability offered by the double hull makes it practically impossible to capsize it. The catamaran is liable, however, to go down head foremost, or to sink through the straining of one or both hulls. If employed in smooth water, in harbors, or on lakes and rivers where winds are very puffy, it is a far safer boat for lubbers to use than any single-hulled sail-boat.

To Mr. Herreshoff we are also indebted for a type of yacht which for certain qualities has not had its superior in America. He is and has been totally blind since he was thirteen years old, but few men living have equaled him for versatile ingenuity and success in certain branches of marine architecture.

From the outset Herreshoff's sailing-yachts were marked by lines so peculiarly his own that it would be impossible to confound them with the models of other builders, although their great success and popularity has at last led the yachtmen of New England to imitate them frequently, at least

in part. They are characterized by a long and full midship section, moderate dead rise (the now famous Shadow has a sharper floor than most of the Herreshoff yachts), a clean run, the run and futtock timbers being invariably attached to the deadwood and keel almost at right angles, without any of the gentle, curved modeling or the hollow floor so common in foreign and many American yachts, and carried to the farthest limit in the English leadkeeled cutter. These yachts are further characterized by a high free-board and great sheer, both fore and aft, the forward curve following a parabolic line, which begins about a third of the length from the stern. The blunt stem is also slightly curved, the quarters are rather heavy, the trunk and wash-board are high almost to clumsiness, and the standing-room extends so far aft that the rudder-head is inside instead of on deck, as is usual with small American yachts, and the rudder is of uncommon dimensions. These yachts have been, with but two or three exceptions, invariably furnished with centre-boards, and yet have good draft and a deep, rockered keel. Their long bowsprit curves downward and they are heavily sparred, giving the impression of being top-heavy, and when one first sails in one of these yachts this impression seems to be confirmed, for they are tender-sided, and a light breeze at once carries them well over; but, like the English cutter, when they find their bearings they go no farther, and accidents to them have been exceedingly rare.

Notwithstanding their full body, the Herreshoff sailing yachts have been very successful racers. The lightness with which they are built aids this result, while unfitting them for heavy weather. In a race in Boston harbor in 1870, the prizes in each of the three classes were won by these yachts. Herreshoff has been most successful with small yachts, especially sloops and cat-boats. The Shadow, the only competing yacht which won a race from the English cutter Madge in 1881, is one of Herreshoff's crack models and one of the last he designed before taking to the building of steam-yachts. She has won no end of prizes, and continues to win them. Whatever may be the merits of the case, it is certain that in eating into the wind she fairly surpassed the Madge in the first race, when both yachts were on the port tack after rounding the buoy. On that tack the Madge did not feel the loss of her starboard topmast-stay, which it has been alleged was the cause of her defeat.

At present we are in the midst of a great transition movement, which has been hastened, but not originated, by the *Madge's* success in 1881. Years ago the writer predicted, in talking with Mr. Herreshoff, that a movement in favor of narrower and deeper yachts, with double head-sail, was not far off, because after going to one extreme, there would follow the reaction natural to an active people like ours, unsatisfied long to remain fixed to one idea, and also because of certain advantages

inherent to the deep boat which we had not sufficiently considered while inshore yachting was most in vogue, but must regard, if long cruises were to become more general among our yachtsmen. Commodore Centre about the same time gave public expression to similar views. Not long after that the building of the Vindex gave emphasis to these predictions. The change has come at last, like every thing in this rapid age and country, with an energetic rapidity that threatens to proceed to an extreme as absurd as that alleged against the advocates of the extreme "skimming-dish" type of yacht. Most of those who favor a change incline to a compromise in one or more details. While, for example, the fixed bowsprit is still retained, the large single jib is fast giving place to fore-sail and jib, called double head-sail, or split jib. Flush decks are also coming into fashion. Double-topping lifts and other minor imitations of English rig have been adopted, while in the modeling of the hull greater draft and metal added to the keel are innovations coming rapidly into acceptance, especially in Massachusetts waters. It is curious to look at some of our genuine American sloops and schooners, whose owners have become infected by the epidemic of foreign ideas, with heavy additions of iron patched upon keels that were never intended to carry them. The introduction of the flush deck, while it adds greatly to the looks of a trim yacht, as a trunk can hardly be considered ornamental, of necessity implies greater depth of model, but of

course must be confined to yachts of some size, unless, indeed, many of the principles hitherto followed in American yacht-building are entirely abandoned. The first notable attempt to compromise the two types was the Valkyr, designed by Mr. A. Cary Smith. Although a centre-board sloop, she draws six feet on a length of forty-six and seven-tenths feet on the water line. While broad amidships, her lines taper off to a fine narrow elliptical counter. Her bow is sharp but wedge-shaped, and her head-rig is, like that of the Regina, a long, straight "horn" of a bowsprit and two jibs. Her sheer plan suggests the cutter, while her interior plan is American, and her rig is modified by English patterns. She carries seven tons of her ballast in lead on her keel.

It must be admitted that the movement for the introducing the cutter here, or for modifications of foreign build and rigs, was at first slow in coming; the tide, after it turned, was singularly slow in making itself felt when we consider the rapidity with which every change of opinion grows in our age and especially in our country. The Vindex, designed by Commodore Centre and built in 1871, excited surprise and a smile of contempt on the face of many a yachtsman. It was not until 1878 that the Muriel was built by Piepgras, after a design furnished by Harvey, of England, and then almost before one was aware of the movement, such enthusiastic experts as Mr. J. Roosevelt Schuyler and Mr. Kuhnhardt had initiated a genuine cutter fever,

and the yachtsmen of America found themselves involved in a brisk warfare concerning the merits of different types of model and rig scarcely less vehement, acrimonious or unfair than the discussions of theological schools. Although some have entered into this contest with cool heads and an impartial desire to do justice to merit wherever found, in too many cases prejudice has guided the opinions and pens of those engaged in this conflict of types. While this is of course human and natural enough, and gives more zest to the discussion, it is not the best way to settle the question; it should rather be weighed calmly and fairly, as it is not so much a question of sentiment as one of common sense and mathematical and experimental demonstration.

The Muriel has been followed in rapid succession by such cutters as the Yolande, the Oriva, the Beduin, and the Edith, originally a yawl; and a number have been imported from England, such as the Stranger, the Madge, the Clara, the Circe, and the Delvyn, the latter a beautiful but extreme example of the deep-draft, narrow, keel-leaded type, being five feet four inches wide, to a length over all of forty-two feet, or a length of thirty-three feet six inches on the water-line, having nearly six feet of head-room. Indeed, cutters and yawls, big and little, are now seen everywhere in our waters, the latter rig being an especial favorite on the Pacific coast.

But many staunch yachtsmen of our clubs still

adhere faithfully to the beamy American sloops or schooners, partly through patriotism, partly through a genuine conviction that this is the best type yet invented. Such beautiful and successful sloops as the Fanny, the Fanita, the Mischief, the Thetis, the Athlon, the Priscilla, the Atlantic, the Shamrock, the Titania, and the Crocodile; such schooners as the Montauk, the Fortuna, the Coronet, the Grayling, and the Sachem, all constructed since 1879, show that the essential qualities of the American type are still predominant in our yacht clubs.

But the most remarkable event in the history of American yachting since the victory of the America in 1851 has been the series of races for the Queen's Cup in 1885 and 1886 in New York harbor, and the character of the vessels which have contended for the cup in those races. These events are so recent that all are familiar with the general details, the results, and the dimensions and models of the contesting yachts. Never in the history of yachting has such popular interest in aquatic sports been displayed to such a degree as in these races, especially the first one between the Genesta and the Puritan; never did the public turn out in such numbers and with such enthusiasm to witness a sailing contest: never was such munificence displayed by capitalists in preparing for such races, no less than five sloops of the largest size being built expressly for the purpose of protecting the cup.

But the most remarkable circumstance connected

with these recent races has been the fact that, when the occasion required, the man appeared possessing the qualifications essential to keep up the interest and promote the progress of yachting. This is exactly in accordance with the laws which regulate human development. The individual referred to is, of course, Edward Burgess, a young man who, from comparative obscurity, has in two years sprung into prominence and achieved a fame as permanent as that of Steers, or, for that matter, of Noah, the first American yacht-builder. In claiming that venerable naval architect and navigator as a fellowcountryman, we follow the line of argument laid down by the Dutch historian. If Noah was the first Dutchman, as claimed, then à fortiori he is the first American, for not only are many of his Dutch descendants in America, but it is credibly accepted that all Americans are his lineal descendants; that being the case, it requires no argument to show him to have been the first American shipbuilder. Like many good cruising yachtsmen, he took his family with him on his cruise, and also a sufficient supply of live stock; when she shoaled her water, his yacht took the ground as easily as a centreboard sloop on the New Jersey flats at the ebb; which seems to indicate priority for the American type. Like some of our yachtsmen, he showed likewise a kindly appreciation for the sunny vintage of the ports at which he touched, being altogether a genial fellow, and a typical yachtsman no less than an admirable ship-builder.

As regards Mr. Burgess' latest venture, the majestic Volunteer, whatever be the result in racing her formidable competitor, the Thistle, he would still be entitled to all praise as the inventor of a remarkable type of naval construction, for his two famous yachts, Puritan and Mayflower, have already forced the English to reconstruct their rules and produce a vessel which nearly approaches the principles followed by Mr. Burgess in his masterly models.

The extreme cuttermen, that is, those who are uncompromisingly in favor of English yachts, and who see no good in the American yacht whether keel or centre-board, claim that Mr. Burgess and other contemporary and progressive American yacht designers owe the recent successes of our "single stickers" to a careful copying of English ideas and inventions. That several points have been borrowed from English rig is indisputable, such as the double head-sail, jibs of different sizes, the stepping of the mast more amid-ships, housing the topmast, carrying the mainsail more inboard. and the like. So far as speed is concerned all these imitations are of little importance in enhancing the swiftness of our yachts, although they may add to safety and efficiency in handling. Everyone knows that the less canvas is divided the better the sails hold the wind, and the closer a sloop will point. The close pointing of English cutters we consider due to a different mode of handling rather than to superior ability in the ship. If given more

"full" they might sail better than when too closely nipped.

As regards imitations of form and construction, it is true that Mr. Burgess has tapered off the quarters, given a finer run and a long overhang aft, imitating the pointed and, as we think, ungraceful tail of the modern English cutter. But a vessel does not sail with her counter, and if by lengthening his overhang he gains more deck room for handling his big mainsail, he has not yet departed essentially from the distinctive principles of the American model, beam for initial stability, the centre-board for eating to windward instead of extreme draught, greater sheer and less freeboard, and less wall-sided, and showing a richer, more affluent, graceful and buoyant curve in the midship section. The Volunteer is in fact a finer reproduction of the first American type, the pinkie. The lead on the keel does not impress us as especially an English invention except in the method of strengthening the floor frame, the sharp futtock timbers with iron frames curving rapidly to meet the vast keel of lead. We have seen that the Maria had outside lead on her bilge, before it was tried by Fife on the famous Fiona, and Samana, an idea which in England originated with Dan Hatcher. Small American yachts have for many years carried ballast on their keels. A comparison of measurements shows at a glance that Mr. Burgess, while inventing superb marine types of his own, has still carefully differentiated between the American and

the recent English models. The Puritan has 80 feet waterline, 93 feet over all, 23 feet beam, 8.2 feet draft; the Mayflower has 85 feet waterline, 100 feet over all, 23.6 feet beam, 10 feet draft; the Volunteer has 85.10 feet waterline, 106 feet over all, 23.2 feet beam, 10 feet draft; the Galatea (English) has 90.6 feet waterline, 102.6 feet over all, 15 feet beam, 13.6 feet draft; the Thistle (English) has 85 feet waterline, 105 feet over all, 20.3 feet beam, 14.1 feet draft. It is evident at a glance that Mr. Burgess has uniformly kept in view in all these noble sloops the importance of beam for sail carrying power and stability, while on the other hand the new English champion Thistle has very markedly departed from the narrow beam which has been claimed as one of the great distinctive and essential advantages peculiar to the English type of the last decade. The concession made by the designer of the Thistle is far greater than any yet made by Mr. Burgess or any of our genuine American yacht builders, and practically amounts to begging the entire question.

Two points are to be noted in this connection; one is, that notwithstanding all that has been urged to the contrary, there is no distinctively English type of yacht model. The cutter-rig is not essentially English; it is as much French and has changed but little since the year 1800. But as regards the hull, the English yacht designers have varied far more in fifty years than the American designers. The so-called cod's head and mackerel

tail model, broad in the eyes, with great beam and short entrance, was only gradually abandoned when the Mosquito in 1847 by a long, hollow entrance showed not only a new departure but a borrowing of hints both from the Swedish pilot boats and the Japanese row boats. The Titania, designed by Scott Russell, with a slightly rockered keel rising towards the bow, increased sheer and beam carried aft, showed still further modification. All this time the beam of the English yacht was but little less than that of an American vessel. The success of the America led to several attempts to copy her "points." Every variety of rig was adopted during that period, the top-sail schooner, the brig, the yawl, the lugger, the ketch, besides that of the cutter.

As yacht races became more fashionable every avenue was sought to win prizes by keeping within the absurd tonnage rules and yet gaining sailing power. It is owing to this fact and this fact alone that the present narrow, deep, leadkeeled yacht of England came into being and not in the least because it is really superior in all respects to the beamy American yacht, as so many loudly proclaim. Beam and length being alone taxed, and it being discovered that by lessening the former and increasing the latter, with great added draft and ballast carried low to compensate for loss of stability, increased sail power could be gained without proportionate increase of tonnage, the present type was gradually evolved and a class of deep narrow racers produced called tonnage cheaters. Nobody pretended at the outset that there was any other object in developing this extreme type of English yacht. Now that it has been found that the swiftest of the English flyers cannot outsail the crack American boats and that the utmost limit has been reached in this direction, a reaction has set in. The old rules have been abandoned, and length and sail plan are the factors of measurement now required by the English yacht clubs as in our clubs. It is evident that in a few years the proud pacers of the present extreme English type, notwithstanding the stately beauty of some of the yachts it has produced, will be a thing of the past. Extreme draft and immense keels of lead will be abandoned to small yachts in which head room can only be obtained either by depth or a lofty trunk cabin. The excessive cost of clinching fifty to eighty tons of lead to an intricate frame expressly prepared for it has added greatly to the expense of yacht construction, a fact to be earnestly deprecated as tending ultimately to retard the extension of one of the most manly and useful of sports.

Thus we see the absurdity of much of the clamor which of late years has been sedulously raised against the American yacht. The English narrow hull has been developed as a result of circumstances and not necessarily because it was the best form; with a change in those circumstances the type is destined to great modification and perhaps ultimate extinction. It has proved of advantage in one respect by stimulating a revival of interest in sail yachts and the production of a number of ships by our leading designers which have presented the finest combination of advantages the world has yet seen.

In spite of all these facts such has been the persistent and intemperate outcry against the American yacht in certain quarters that some have been almost inclined literally to give up the ship and, forgetting our glorious record, to believe that Americans must go to England to learn how to build yachts, both for speed and seaworthiness. On the latter point the American yacht has come in for an absurd and illogical share of abuse. It has been forgotten that our yachts have carried the American flag in every sea; that an American sloop yacht only fifty-three feet over all crossed the Atlantic in mid-winter; that an American schooner only forty-four feet over all and with but two feet of freeboard has been to Honolulu from Boston; that our Baltimore clippers encountered every weather; that our "bankers" ride the worst gales of March, and that our pilot boats with yacht-like models, laugh at the December hurricanes from the Delaware capes to the Georges. In spite of these facts we have been told with "damnable iteration" that our models were mere skimming dishes fit only for smooth land-locked harbors; some of them may be, but not all, nor half, nor a third. Perish the thought! better ships than have

been turned out from our yards for one hundred years have never been seen. In each generation, for every ship the old world could point to with pride we could exhibit one that would "go it one better." It is time that we pluck up heart of grace and allow no more dust to be thrown in our eyes by foreign arrogance, whether in the matter of free-trade, of self-government, of fighting or of shipbuilding.

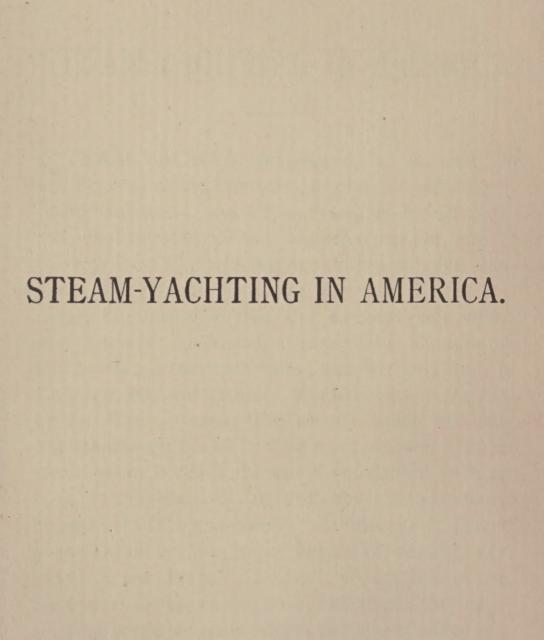
All marine types are the result of evolution; as in all human inventions, ideas are borrowed to reappear under new adaptations. The English borrow; we borrow; the inventive genius is seen in the capacity to assimilate and adapt old ideas to new circumstances. Furthermore it should be remembered that all rules of measurement can only be general and arbitrary, although it is now coming to be generally acknowledged that no racing rules can approximate justice unless taxing the spread of canvas carried, as well as the dimensions of the hull. This is the latest phase adopted in this knotty question, and will result in the end in greatly reducing if not altogether obliterating the difference between English and American types.

As to the question of the beauty of relative types and rigs, that is surely a matter of taste as futile and as difficult to settle by discussion as if two men were to try to decide by argument the relative beauty of a brunette and a blonde. Utility is another question. The single sticker, whether sloop or cutter, is undoubtedly the best rig for beating to

windward; but the merits of other rigs are so nicely balanced that no demonstration can absolutely prove one to be preferable to the others under all circumstances. The Italian fisherman prefers the lateen rig; the Frenchman the lugger and ketch; the Englishman the cutter and yawl; the American for two centuries has found nothing better than the schooner, for vessels over a certain size intended for all around work. It is a question for taste, habit and circumstances to decide. Fortunate is it that it is so, as the world's marine is thereby far more interesting, far less monotonous. What a dreary world it would be if all people were alike, if all spoke the same tongue, thought the same thoughts, built the same ships!

For the rest, the discussion of the relative merits of types and rigs would be more profitable if we would first inquire for what purpose a yacht is intended, whether for racing or cruising, for blue water or harbor sailing. Adaptation lies at the basis of the whole question, and it is idle to expect to invent a model that will be equally good in rough and in smooth water, for cruising and for racing, for deep water and for shallow sounds. Few, however, will refuse to admit that some of the yachts designed and built in the United States during the last decade have come very near to realizing this ideal.

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STEAM-YACHTING IN AMERICA.

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CTEAM-YACHTS originated, it is said, in I France, where any sort of taste for yachting is purely an exotic, and where the sport would naturally be first adopted in a tentative manner, and in the way least likely to require skill or involve danger. As evidence of this we may cite the extraordinary circumstance that the French yacht which was sent over to America during the Centennial, and attracted some attention, was not only built in England, but was actually manned and navigated by an English crew, the owner being the only Frenchman on board! The most natural kind of steam-yacht is really the one first adopted in England, and consists of an ordinary schooner-yacht rigged with full sail-power. Amidships is placed a small auxiliary engine, of but small horse-power, called, in sea slang, "a kettle." When not in use, the funnel lowers to the deck, and the feathering or hoisting screw scarcely affects her speed under sail. Though we can hardly imagine that this arrangement would be quite satisfactory to the true sailor, half of whose love for the sea consists in the fun and excitement of manœuvring a sailing-ship, yet,

in this rapid age, even to the true sailor, there are possible advantages in this arrangement on a long cruise, when drifting through the "doldrums" or "horse latitudes," or beating up for weeks against the trades. Another kind of steam-yacht is the class to which the celebrated yacht Sunbeam belongs—a genuine compromise between sail and steam. The lines resemble those of a steamship, and a fair amount of steam-power is displayed. At the same time, canvas enough is spread to enable the vessel to depend wholly upon it when the wind is fair. Of this description was the unfortunate Jeannette. This class of steam-yachts is now quite popular in England, and seem likely to become so in the United States.

The third class of steam-yachts, and the only class hitherto employed to any extent in American waters, is one that depends wholly on steam-power, and may be used both for in-shore cruising or for long voyages, although naturally best suited to the former purpose. It is true a few of our steam-yachts make a pretence of carrying sail, but it is only for looks, or to steady the vessel in a sea-way. The only danger possible to such a craft is one that can occur only through recklessness or gross ignorance. We refer to the reckless use of high-pressure engines or worn-out boilers, and to overloading with passengers.

There seem to be only two or three steamyachts in America chiefly dependent upon canvas the schooners *Promise* and *Reva*, which carry an

auxiliary screw - we are at liberty to consider, therefore, that only one class is included in any further remarks we shall make on the subject - the steam-yacht propelled chiefly by steam. These are already very numerous in America, but in most cases they consist of little more than a shapely, undecked launch, twentyfive to forty feet in length, with a hot and fussy little engine amidships. These spider-like craft, darting to and fro about our lakes, rivers, and harbors, have doubtless given enjoyment to many. There is no great variety in the construction of these third-class yachts. If they have a cabin, their plan consists of a small engine-room amidships, a saloon aft, and a pilot or wheel-house forward, all slightly depressed below the deck level and under one long roof. There is no beauty in this arrangement, the deck being almost altogether covered by the house, but the trimmings of the saloon are often as elegant or costly as could be desired. A size larger than this is the steam-yacht, fifty to seventy feet in length, of which the Herreshoff Steam Manufacturing Company, among others, has turned out several hundred, averaging sixty feet in length. To this class belongs the graceful yacht Camilla, kept by the late Dr. J. G. Holland at "Bonnie-Castle," his home on the St. Lawrence.

Another typical size, ninety to one hundred feet in length, although, of course, not confined to these builders, has been illustrated by many examples at these celebrated yacht works. But these have been their three favorite sizes, the number they have turned out amounting to over one thousand. The hundred-foot yacht is intended for coast-wise cruising, having dining-saloon, state-rooms, etc., and could hardly be surpassed in its commodiousness by any thing of this size. It is furnished with a light schooner rig, that is obviously for looks rather than use. But the great feature of these yachts is the boiler and engine, or motive power, which is wholly an invention of the above-named firm.

The brothers, John B. and Nathaniel G. Herreshoff, are the grandsons of a Prussian engineer of merit who settled in this country. Their father was and continues to be greatly interested in ships. John passed his boyhood sailing boats on Narragansett Bay, but at the age of thirteen had the great misfortune to become totally blind. This did not check his interest in sailing vachts. With some one in the boat to warn him when approaching the land, he can steer a sloop in a race to windward and win. In 1862, Mr. John B. Herreshoff started a yacht-building yard in partnership with Mr. Dexter S. Stone, one of our most accomplished yachtsmen. This partnership was dissolved in 1870, and soon after Nathaniel Herreshoff, who had obtained a sound scientific education at the Massachusetts School of Technology, entered into partnership with his brother. Up to 1869 Mr. John B. Herreshoff and his partners turned off upward of two thousand sailing-yachts, often merely cat-boats and rarely above fifty feet in length, but of a thoroughly individual type and of a quality which carried the reputation of the blind yacht-builder of Bristol, Rhode Island, all over the world. If he consulted his tastes he would still be constructing sailing-yachts. But manifest destiny did not intend his efforts to stop there.

In 1869 this enterprising firm, ever on the alert to keep pace with the age, and to the full as canny in making money as in modeling yachts, began to turn their attention to the subject of steam-yachts, beginning first with the steam-launches that have given them a reputation in England nearly equal to that they hold here. Their success would have been insured even if it had depended only on modeling. But they had the great good-fortune and genius to invent an engine of a more compact and convenient kind than any yet employed in ships, together with a boiler altogether different from any in use-one literally safe from the danger of bursting. The steam-coil boiler, as it is called, was perfected about eleven years ago.

The marine steam-engine employed by the Herreshoff Company cannot be better described than in the official account of the famous *Leila*, which was under suspicion of being intended to smuggle filibusters into Cuba. It is "a compound condensing engine, with vertical cylinders placed side by side above the crank-shaft, and having their axes

in the vertical plane passing through its axis. The cylinders are direct acting, the outer head of the piston-rod being secured into a cross-head working between guides in the engine frame, while the connecting-rod lies in direct extension between the cross-head journal and the crank-pin journal. The forward or small cylinder operates a lever which works the air-pump, the feed-pump, and the circulating pump, all of which are vertical, single acting, and have the same stroke of piston. The axes of these pumps are in the same vertical plane. The feed-pump and the circulating-pump * * * The air-pump is a are plunger-pumps. lifting-pump without a foot-valve. air-pump piston is not packed, but ground to a metallic fit in the brass barrel. * * * engine frames, four in number, are each in a single casting and bolted to a bed-plate, which is also a single casting, extending under the entire length and breadth of the engine. The engine works with surface condensation. The surface condenser is composed of a single copper pipe placed on the outside of the vessel beneath the water, and just about at the garboard stroke. The pipe commences on one side of the vessel abreast of the after, or large cylinder, extends to and around the stern-post, and thence along the opposite side of the vessel until abreast of the air-pump and forward cylinder." It is not essential to go into further details here, but it may be well to add that the strength has been so judiciously distributed in this machine that the result has been extreme lightness, as well as great economy in the use of steam.

But it is in the celebrated coil-boiler that the Herreshoffs have displayed the crowning effort of their genius, producing one of the most remarkable modifications in the employment of steam since the days of Watt and Fulton. Four objects have been obtained by the Herreshoff boiler, possessed by no other in existence; it occupies less space; takes less metal and less fuel than other boilers; steam can be produced from cold water in two to five minutes; and it is non-explosive. These advantages are obvious in a yacht. Of course, until they have been tried on a large scale, there may be latent disadvantages. The peculiarity of the Herreshoff boiler is that instead of being a tube of boiler iron over the furnaces, the furnace consists of a circular grate, around which is built a circular wall of brick, while around the masonry in turn is a continuous double coil of wrought-iron pipe. The hot gases from the furnaces circulate on every side of this pipe which contains the water that is to be turned into hot vapor or steam. The coil is supplied with water by a feed-pipe at the top, while the steam passes by another aperture near the top to the cylinder. The whole apparatus is surrounded by a casing of sheet iron and is conical in shape.

The most important defect of this boiler is the impossibility of examining the interior of the coils, and the facility with which they are made

foul, especially by water impregnated with limesalts. This, however, is less rapidly developed in fresh than in salt water. But this defect can be largely remedied by an occasional dose of a solution of soda and potash, which also tends to neutralize the fatty acids of the oils on the machinery. By this precaution a lining of black magnetic oxide of iron is gradually deposited, which is smooth and thoroughly resists the incrustation of salts. With this machinery the Herreshoff one-hundred-foot yacht is capable of achieving a maximum of twenty-two miles an hour with two hundred pounds of coal and only three men to take charge. This, of course, is with all the circumstances favorable, which very rarely occurs at sea. A steamer with a maximum speed of fifteen knots, of course never averages that in a voyage; either she alters her trim by burning coal, or the wind and sea are ahead, or something else prevents.

The greatest speed ever obtained by a steampropelled vessel, considering the size, is undoubtedly that reached by the Herreshoff Vedette boats built for the British government. They are required to steam fourteen knots, and actually steamed fifteen and one-eighth knots; the boats of Mr. John Samuel White, of Cowes, who had made a specialty of this class of vessel, only attained thirteen and three-eighth knots, a very great velocity it may be granted. The dimensions of the latter are only forty-eight feet in length and nine feet beam, with a depth of five feet. The

success of these boats depends partly on the lightness of their construction and consequent moderate displacement, a cause which has also contributed to the success of the Herreshoff sailing-yachts. The lightness of the boiler and machinery doubtless aids the general result. To counteract their lightness of draft and to keep the propeller from "kicking" into the air in a sea way, the Herreshoff steam-yachts generally have the screw depressed below the keel. It is protected by a skeg, or depressed convex projection of wood and copper, or copper alone. It extends as far as the rudder-post, which turns upon it, the rudder being attached to it as to a spindle, one-fourth of its breadth from the forward edge, as in the rudder of a sharpie.

The lines of the Herreshoff steam-yachts are exceedingly sharp and clean, showing a directness and a freedom from bulginess in all the lines which is very remarkable. The bow presents an acute wedge, without the slightest tendency to the wave line formerly so much valued by ship-builders when Stevens and Scott Russell employed it. These yachts are often composite, the frame being of angle-iron, excepting the stern and the stern-post and the planking, which are of wood. The Herreshoff steam-yacht, take it in all its points, as a model for speed and for the completeness and unrivaled merit of its propelling power, as well as for economy in the arrangement of space and in the running expenses—in a word, for attaining the end

desired in a small steam-yacht, is one of the completest examples of mechanical and scientific genius yet produced in the United States.

But in size and splendor of interior appointments it must be said that these yachts do not yet approach a number that have already been built in other American ship-yards. Out of a large number of steam-yachts enrolled in our yacht clubs, a large number are considerably upward of one hundred feet long. Besides the Herreshoffs some of our leading sail and steam-yacht builders are Jas. Lennox, of South Brooklyn; Samuel Pine, of Williamsburg; Cramp & Sons, of Philadelphia; John Roach & Son, of Chester and New York; Ward, Stanton & Co., of Newburg; Pusey & Jones, Harlan and Hollingsworth, of Wilmington; C. R. Poillon, of Brooklyn; D. J. Lawlor, of Boston, and G. Lawley & Son, of City Point, Boston. Of course many others among our ship-builders can turn out excellent work if models are given them, or even from their own models. Besides the better known yacht and general ship-builders we have named, the number of excellent artisans who turn out thorough work is legion, and includes such men as Joshua Brown, of Salem; J. Keating, of Marblehead; Van Deusen, of Williamsburg; J. Clapham, of Roslyn, L. I., and Piepgrass, of Greenpoint.

Among our most notable steam-yachts is the Corsair, owned by Mr. J. Pierrepont Morgan. She is of iron throughout, and was built on the Delaware in 1880 by Messrs. William Cramp & Son.

She is one hundred and eighty-five feet long over all, one hundred and sixty-five feet on the water-line, twenty-nine feet eight inches extreme beam, with fourteen feet depth of hold and ten feet five inches draft, altogether of a very desirable size for a pleasure-boat. Her engines are compound, surface-condensing, with a low and high pressure cylinder. Her accommodations are sumptuous in appliances for comfort and in decoration, but offer nothing especially novel. It is an interesting circumstance that Mr. Osgood's iron steam-yacht Stranger is a twin to the Corsair.

Another notable steam-yacht is the Yosemite, built in 1880 for Mr. William F. Belden, by Messrs. John Roach & Son, at Chester, Pa. She is one hundred and eighty-six feet over all, one hundred and seventy feet on the water-line and twenty-four feet beam; she draws eleven feet eleven inches aft and has twelve feet depth of hold. She is built of iron and evidently constructed for outside work in long cruises. Her appearance is saucy, rakish, and severe, and suggests rather some fleet smuggler or slaver than a yacht intended for pleasure. She is propelled by twin screws and is schooner-rigged. Although not heavily sparred, the great rake of her masts, together with the long housing top masts, make her look excessively wicked. This effect is aided by the turtle-back, which extends the length of the vessel and at the bow tapers down to meet the stem, extending out to a point and giving the appearance of a long spike like that of the swordfish. It must be admitted that the general effect of this turtle-back is not in the least beautiful, but it suggests ability to endure weather and probably adds to her safety in a storm. But it narrows the promenade deck to a very contracted limit, while the slender iron balustrade and netting which protect it scarcely seem in keeping with the sturdiness of the turtle-back. If the *Yosemite* were intended for some special service her plan might be exactly the thing, but for a pleasure yacht alone she seems to be too heavy, challenging attention rather than admiration.

More agreeable to look at, and, perhaps, as good a sea-boat, is the Rhada, built in 1880 for Mr. Pierre Lorillard. She is of composite construction, very fast and every way trim and handsome, except in her forward-deck saloon, which breaks the flow of lines and is so unnecessarily high as to ruin the general appearance of an otherwise very handsome boat. The tendency of Americans to crowd their decks with houses is excusable when it results from a question of dollars and cents, as in a freight or passenger vessel. But we cannot understand why, when a gentleman builds for pleasure a craft in which beauty of lines and decoration are especially considered, he should so often disfigure it with clumsy excrescences called cabins, so formed and placed as to ruin the general grace of outline. The Rhada was built at Newburg, by Messrs. Ward, Stanton & Co. As regards interior appointments, few of our yachts equal the Ibis, changed from a schooner to a steam-yacht, and owned by Mr. Higginson, of Boston.

Mr. Samuel Pine, of Greenpoint, L. I., has built several very beautifully modeled steamyachts, intended for light cruising on the lakes. The roughness of the seas on those waters, however, when it does blow hard there, would make it undesirable for any craft with such a low freeboard and such flimsy upper works to get caught out in a northwest "sneezer." But for ordinary weather these little steamers seems well adapted. As regards beauty of lines we have seen them surpassed by nothing afloat. From stem to stern not a break is to be discovered in the harmonious blending of curves. The entrance is fine, but most attention has been paid to the long, hollow run. Owing to the moderate draft, the propeller is depressed below the line of the keel, and, as in the Herreshoff boats, is protected by a skeg. The beautifully tapering bow is appropriately terminated by a sharp cut-water, ending in a beak-like point, answering in appearance to a bow-sprit. This is not an uncommon form of bow in American steam-yachts. It was first employed in American ocean steamers when the bowsprit was abandoned. Eventually, the blunt stem came altogether into use in our steam marine, having been introduced by Commodore Vanderbilt in the famous steam-yacht North Star. The narrowness of the deck limits for promenading appears to be a defect in these otherwise perfect yachts, but it is quite too common in our

steam-yachts to call for more than mere mention in this respect. They are furnished with Massey's Patent Compound Engine, which, with its rapid high-pressure cylinder, long stroke, and double pistons, is one of the most desirable types of the compound engine.

For interior decorations and comforts probably no steam-yacht ever built has merited more attention than the Namouna, completed in the spring of 1881, for Mr. James Gordon Bennett, by Messrs. Ward, Stanton & Co., of Newburg-on-the-Hudson. In the Namouna, Mr. Bennett has successfully endeavored to surpass the sumptuousness and convenience of every known yacht. The wonder is that with such a purpose in view so few mistakes occurred. The results proved equal to the intentions of the owner.

The Namouna was designed by her builders and represents a modification of English and American models, which offers a very agreeable result. Her slightly hollow bow terminates in a long, graceful cutwater, supporting a gilded billet-head, and carved scroll-work, with a short bowsprit projecting beyond. It needed but an artistic figure-head of a fair feminine form instead of a billet head to complete the extreme beauty of this English-looking bow. It is a source of wonder to us that our wealthy yachtowners, who are so ready to lavish expense, do not give more engagements to our sculptors by decorating the bows of their yachts with figure-heads.

The tapering elliptical stern has a moderate overhang. Here, again, we have a suggestion of English models. The keel is perfectly straight; the midships section is long and full, giving more interior space, together with greater stability. The sides are straight or wall-sided, and the deck is protected by massive and lofty bulwarks of teakwood. The latter feature gives a solidity to the appearance of the yacht appropriate to the seagoing work for which she is intended. The general effect when seen on the ways is one of remarkable symmetry and beauty of lines, aided by great strength of construction. It is only after repeated inspection that one realizes the real dimensions of one of the largest private yachts afloat. She is 226 feet 10 inches in length over all, and 217 feet on the water-line. Her extreme beam is 26 feet 4 inches, her depth of hold 16 feet 2 inches, and her draft 14 feet 3 inches aft, and 11 feet 6 inches forward. She is 845 tons, old measurement, but actually registers 616 tons, new measurement.

She is rigged as a three-masted fore-and-aft schooner, carrying so-called lug sails. The looks of the vessel would have been decidedly more effective if the two after-sails had been provided with booms. The masts are single sticks, beautifully tapered, well placed, and raking enough to add to the general harmony of lines; but the spars and canvas are chiefly for looks or for steadying the vessel in a sea-way. For motive power she

depends altogether on the powerful engines, which are of the vertical compound, surface-condensing, double-tandem order, with two cylinders, highpressure, and 23 inches in diameter, and two lowpressure cylinders, 42 inches in diameter. Two cylindrical boilers of steel, 13 feet in diameter, feed the engines. The shaft is 11 inches in diameter and the propeller 11 feet 6 inches from arm to arm. She is calculated to average fourteen knots or seventeen miles an hour. Four compartments lend safety to the vessel, provided they are more carefully looked after than is common in compartment ships. There is also a donkey boiler, capable of condensing five hundred gallons of fresh water daily. Engines are provided in addition for the steering apparatus, and for generating power for the Edison electric lights, of which there are several hundred on board. There is also an engine for distributing fresh water to all the saloons and state rooms, to the galley, the quarters of the crew, and wherever else it is required. As regards every requisite mechanical apparatus, the Namouna combines the latest improvements, to a degree never surpassed on a sea-going vessel.

The deck is flush fore-and-aft, and has a man-o' war look with its beautiful teak wood bulwarks, its four Hotchkiss guns, its elaborately designed after-steering-wheel, and its bronze binnacle. All the deck houses are built in an unbroken line, and, although of iron, are lined with teak, which preserves the uniformity of effect. The teak imported for

the vessel cost \$8,000. They are filled with crackle glass, which allows the sunlight to sift below rather than to pierce with a garish glare. The arms of the seats are finished off with bronze dolphins. The deck-houses consist of an elegant smoking-room, a chart-room, the engine-rooms, and a sleeping cabin intended for the owner when he prefers to lodge on deck rather than below.

But it is in the arrangements and decorations below that one finds the most remarkable features of this peerless floating palace. Naturally the ship is divided into four parts: the quarters of the crew, the engine-room, the ward-room of the officers, and the cabins for the owner and his friends, to which all the rest is subordinate and subservient. Here we find the order which has been observed from the first ship to the present day reversed. The passenger cabin is forward in the bow, and the forecastle, or quarters of the crew, aft under the quarter-deck. This plan has already been tried in two or three English steam-yachts, and is obviously intended in order to escape the fumes and cinders and heat of the galley and machinery, as well as to gain a fresh current of air. It may be questioned whether these advantages are not too dearly purchased, since the fore part of the ship is most affected by the motion of a headsea and by the sound and shock of the surges. The quarters of the crew are exceedingly neat and ample, and better provided with comforts than the cabins of many large sailing ships, and include a

separate galley and laundry-room. The crew numbers forty men all told. Next to the aftercastle, as it must in this case be called, is the officer's ward-room, a commodious and attractive saloon, fitted up with maple and chestnut, and surrounded by staterooms. The galley for the main cabin is situated next to the engine-room, and divided from it by an iron bulkhead. It communicates with the pantry by a long, narrow passage along the side of the ship between two of the compartments. Every disagreeable odor is thus effectually kept at a distance from the owner's cabins.

We now come to the cabins par excellence, which are of great beauty and interest, and include a pantry, an armory, nine staterooms, a main saloon or dining-hall, and a ladies' saloon, beside a number of minor offices and an abundance of passageways. They are so arranged as to avoid, in a degree, the formality common in a ship's cabins, and suggest apartments in a dwelling house. Descending from the deck by a stairway of carved woods, resembling, in beauty and solidity, the staircase of some ducal chateau, we reach an ample hall or vestibule serving also as an armory. On one side is the entrance to the butler's pantry, and on other sides are sumptuous staterooms and a warlike case of burnished rifles and cutlasses. Stepping over the waxed and inlaid floor, we enter the grand saloon, an apartment twenty-four feet in length, extending entirely across from one side of the ship to the other, and sixteen feet in width—a room of spacious

dimensions for a private yacht. The light is distributed over the apartment from a large, domelike sky-light of crackle glass. A curtain of Indian stuffs can be drawn across, and the light can be further tempered by a stained-glass slide. Light is also admitted by round port-holes. Exquisite hangings, in which the interwoven thistle is wrought in silk and gold, can be drawn across them and serve to dispel the idea that one is on ship-board. The thistle on these curtains constantly reappears in the decorations of the yacht, and is doubtless a reminiscence of the Scotch-Irish origin of her owner. Below the sky-light, over the massively elegant table of carved oak, hangs a very elaborate brass chandelier of Moorish design, diffusing a genial glow at night by means of tiny globes of electric lights pendent from the bands of metal filagree.

All the wood-work in this saloon, including a paneled dado, are of English oak slightly stained so as to relieve it from the crude tint of newness. The sides of the room above the dado are of a delicate turquoise blue, in square panels, apparently of raised plaster, stamped with thistles of gold leaf. In reality this is done by a process comparatively new in this country, but suggested by an old Scotch style of decoration. The effect is reached by coating a lining of leather with a paste-like pigment mixed with drying-oil and laid on so solidly that it could receive a rough raised surface. Its durability is remarkable, while the exceeding richness of the effect is exceptional. At either end of the saloon

are sofas upholstered in figured-green plush. The iron deck-beams, reaching across the ceiling, are faced with oak, and the spaces between are painted with the most delicate designs of gold upon a seagreen ground; this work was done altogether by hand, without the aid of the stencil, and is far more costly and artistic than one would imagine at a superficial glance. A superb oaken bookcase, next to the mantel, is a marvel of artistic taste and handiwork, and the same may be said of the sideboard on the opposite side. The floor is inlaid with elegant designs in colored woods and is warmed in the center by a costly rug of Oriental pattern.

Not only is every object thus far described exquisite in itself, but all are harmoniously combined to give an air of comfort as well as regal luxury, and all contribute in turn to aid the central and most remarkable piece of decoration in the saloon, the magnificent mantel piece and grate. The former reaches to the ceiling. It is supported on either hand by a dolphin superbly carved out of oak. Of the elaborate carvings of this mantel it would be difficult to give a clear description, in language. The grate is protected by a nickel-plated grating, to prevent the coals from falling out in rough weather, and is set in a recess covered with blue glazed tiles, relieved by larger glass panels of a pale-green hue, representing the sea with fish and shell-fish disporting therein. This part of the

decoration and the glass-work throughout the vessel were executed by the Louis C. Tiffany Glass Company, but the general direction of the interior decorations of the *Namouna* was assigned to Messrs. McKim, Mead & White. The harmonious arrangements of colors in this saloon and the elaborateness of the carvings make it one of the most elegant cabins ever seen in a ship, at least since the time of Hiero and his famous yacht.

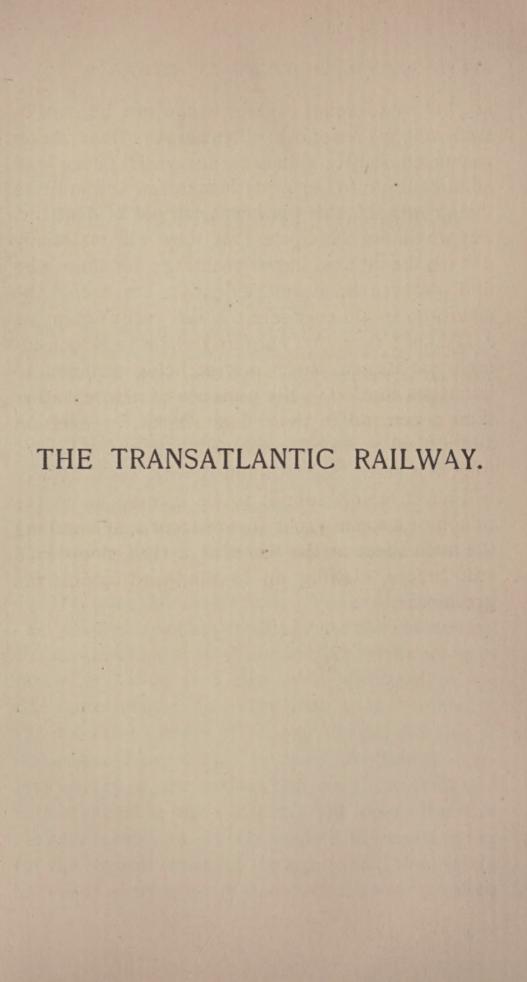
From the main saloon we enter a winding aisle or passage upholstered with a lofty dado of olive green plush, and leading to the ladies' saloon and staterooms and the stateroom of the owner. The latter is furnished entirely in cherry wood, excepting a dado of pale maroon plush. It includes a bed-room and a bath-room, besides ample closets and wardrobes. The sides and floor of the bathroom are faced with tiles. The bath is in the floor, covered by a trap-door, a contrivance applied also to several other staterooms in this yacht and now not uncommon. The bed-room is lighted by a special sky-light, beneath which is a beautiful toilet-table, mirror and chest of drawers of carved cherry. Opposite to this is the bedstead, also of carved cherry, of a massive design, relieved by delicate carved work. The sofa is covered with olive-green plush-the prevailing tint in the upholstering of these cabins-and the panels of the doors are filled with mirrors of the costliest glass. The sides of this cabin, as of the ladies' saloon and most of the staterooms, are covered with flowered chintz of an agreeable design. At a distance the effect is excellent, but seen near by it has a suggestion of cheapness entirely out of keeping with the surrounding decorations.

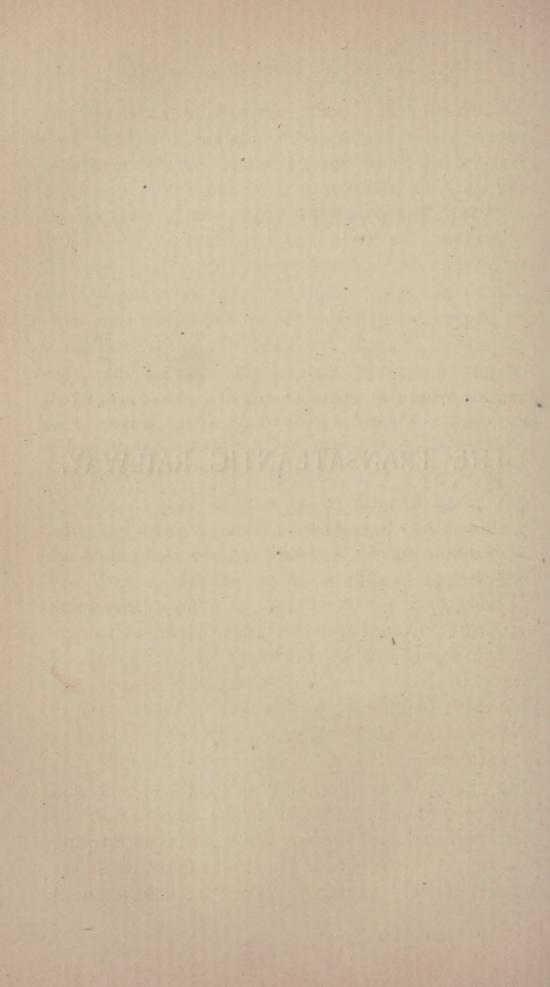
The ladies' saloon differs from the main saloon by being smaller as it is nearer the end of the ship. Instead of a side-board in this room we find a piano, expressly made for this position. A bookcase presents a piece of light and elegant open-work carving resembling a Japanese cabinet. A dainty writing-desk is attached to it, almost too light for service, but very graceful in design. Of the other apartments each has features of its own, and all, whether for guests or attendants, are elegantly furnished.

Such is the Namouna, so far as one is able to describe her in a few brief pages-fairy-like in form, Oriental in the splendor of her decorations, and yet cozy and comfortable as an old English home in the plan of her appointments. Science, skill and money have been lavished upon her without stint. As a representative of what American craftsmen are capable of, she has never been surpassed. The ship-builders and artists of Europe might inspect her ever so carefully and find little to condemn and much to praise; possibly they might also see another indication of the growth of the arts in the western world. It is a long step from the Mayflower, in which the Pilgrims crossed in 1620, to the Namouna, and even they who deprecate admiration of material success may gather

profit in the national progress suggested by a contrast between these two ships, separated as they are by an interval of two hundred and sixty-six years.

Since the foregoing pages on the American steam yacht were first published, the increase of this class of pleasure craft in our waters has been very marked. The famous Stiletto, designed and built by the Herreshoffs, has attained a phenomenal rate of speed, although but ninety-four feet over all in length. More recently they have added to their laurels by designing and constructing the Now Then, the fastest steam yacht afloat. A number of sea-going steam yachts excelling the Namouna in size and rivaling the luxury of her cabins have also been built in our ship-yards, such as the Electra, belonging to Commodore Gerry, and the Atalanta, belonging to Mr. Jay Gould, a screw schooner of two hundred and eighty-four tons, net, a magnificent and able vessel reflecting credit on her builders, Messrs. Cramp & Son. The latest and the largest of American seagoing steam yachts is the Alva, built for Mr. W. K. Vanderbilt by the Harlan & Hollingsworth Company, although designed by an Englishman, Mr. St. Clair Byrne. She is a very handsome vessel of six hundred tons, barquentine rigged, and two hundred and eighty-five feet in length, equipped in the most elegant manner, and costing, it is said, nearly a million of dollars. As an example of our mechanical skill, the Alva is most creditable to our builders, but as a foreign model she can not be considered wholly American. Numerous other steam yachts, constantly added to our yacht fleets, lend additional life to our ports in summer, and indicate the growth of the sentiment for out of door life. But we do not anticipate that they will materially disturb the interest in sail yachting; for those who find pleasure in steam navigation are not of the class who would ever select a sail yacht except as a fashion; they can not fairly claim to be considered yachtsmen, their interest being confined to luxurious comfort in the presence of nature, rather than a demand in their dispositions for exertion and a display of skill combined with some hazard to give it zest. Spirits imbued with such natures will never tamely submit to be cooped up in the saloon of a steam yacht in preference to handling the main sheet or the wheel of a trim sloop in a stiff breeze, clawing up to windward against the green seas.





THE TRANSATLANTIC RAILWAY.

[Copyright, 1886.]

[As the original projector of the great bridge across the Atlantic, I have been requested by the secretary of one of our scientific associations to furnish a concise account of the inception and completion of that enterprise for preservation among its records. Although the facts are widely known, yet so much that is false or exaggerated has been added to what is authentic, that I have decided, in compliance with the aforesaid request, to prepare a fresh and connected statement. I have avoided statistical tables. The details of construction and expenditure can be learned by application to the officers of the Transatlantic Railway, so far as it may be expedient to divulge them.]

THE time had come to act. I was convinced that whathad once apparently been a mere chimerical dream should now be transferred from the realm of fancy to that of fact. In every direction except one there seemed up to this time to be no limit to the inventive faculty of man or the possibilities of scientific achievement. In every direction the tireless energy of the period had sought a vent, and with reasonable success in all but one. But this very uniformity of success made it the more trying for the restless spirits of the age to find themselves baffled in every attempt to reduce the time required

and the discomforts encountered in making the ocean passage from Europe to America. The most original, the most ingenious, nay, the most grotesque models for cleaving the waves, or for skimming over them, or for going under them, had been tried. Every possible means of locomotion had been tested; but all finally failed in completely overcoming the resistance of the water, which of course increased in proportion to the power employed to overcome it. While some slight reduction was gained in the time, the limit of overcoming resistance was reached at last, and with it the ability to increase speed. It proved exactly as in the case of the fleetness of trotting horses. They were bred and trained to the point of making a mile in one minute and forty-one seconds and a third. But the limit was finally reached, or otherwise the day would not be distant when a horse might be bred and trained to trot a mile in no time. To this should be added the fact that every slight movement of speed implied vast increase in expense, which carried with it the corollary that the number of those who were able or willing to pay 50 or 100 per cent. more for the passage across the Atlantic in order to save a few hours proved too insignificant to yield satisfactory dividends.

Recourse was then had to the discovery of some means to cross the Atlantic in the air. One very able and adventurous spirit, John Airlie, a disciple and profound student of the theories and experiments of the eminent balloonist, Mr. E. C. Sted-

man, actually succeeded in constructing an air ship that he propelled across one of our great lakes with considerable control over its movements. This event inspired the public with great confidence in his schemes, and he was able to form a joint stock company to establish a transatlantic line of air packets. Such was the general belief that this line was destined to transform all previously accepted modes of travel that there was a pressure to purchase tickets on the air-ship Stormking, which was to make the first trip to England. It was calculated that her arrival would be cabled in two or at most three days. But she was never heard of again. Whether she is submerged in the dark oblivion of the stormy deep, or whether, snatched by an irresistible current of air beyond our atmosphere, the ill-fated Stormking drifts hopelessly in the chaos of limitless space, manned by a crew of skeletons, it is alike useless to surmise. But this mysterious catastrophe dashed forever all hopes of reducing navigation in the air to a practical basis, and left the world precisely where it had been after the fact was demonstrated that no way had yet been devised for crossing from New York to Europe in less than five days.

For years I had been haunted by the possibility of bridging the Atlantic. A friend to whom I once incautiously suggested it replied: "It is a thing you should mention only to your nearest and dearest friend!" The look of scorn that accompanied the remark showed what I might expect from

many if I should seriously propose such a plan. And certainly the difficulties were qualified to daunt the boldest and the most sanguine. But yet the idea would not slumber. Without any conscious effort the plan took analytical shape in my mind, and gradually worked itself to the point where it dawned on me that the obstacles it presented were not insurmountable; I saw that success was possible, if based upon intelligence and allied with unflinching fortitude and perseverance.

The two chief difficulties to overcome were the financial and the mechanical or scientific. The latter being demonstrated as feasible, the former would naturally become feasible likewise; such is the law of scientific progress. But to demonstrate to capitalists that a railway bridge or causeway across the Atlantic was possible was only part of the problem. The other and quite as important a question remained, which was to prove the safety of the plan as an investment to capitalists. Capital is selfish and so far human. It exists for itself alone; where it gains nothing it neither gives nor risks. The point, then, was to prove the financial advantages that such a bridge would yield to the capitalists of the world.

It was estimated that an undertaking of this nature would demand an expenditure of three thousand five hundred millions of dollars, implying dividends of one hundred and forty millions annually, at an average rate of four per centum. This was a sum to take away any one's breath, although

but a fraction of what might be squandered in two or three years on a war disastrous to mankind, while this enterprise would be of a beneficent character. In presenting the subject to the public we therefore fixed the capital estimated as necessary at sixteen hundred and fifty-three millions of dollars, such undervaluation being common when large claims are about to be made on the public purse. We were well aware that by using customary means the additional amounts required could be raised by degrees as the enterprise proceeded. This theory was, of course, based on the expectation that the plan would be aided, in part at least, by the various powers interested in its success; of the United States government I felt sure. The scheme promised to be so enormous in its expenditures, as well as in its results, and to impart such a stimulus to labor, that no normally constituted Congress could allow it to drop; and, once adopted there, successive appropriations or subsidies to complete the enterprise were simply matters of time and the right use of those great means afforded projectors of great enterpriseslobbying and log rolling, aided by judicious distributions of the stock in ways legitimized by accepted usage. When these means were exhausted there still remained the issue of mortgage bonds, a process that is practically without limit. I derived no little encouragement, also, from the facility with which the noted engineer and lobbyist De Lesseps had succeeded in raising vast sums to fling into that bottomless pit—the canal of Panama.

It was of prime importance to stamp the Transatlantic Railway as an international undertaking, not only in order the more easily to secure the requisite funds, but also to insure the absolute neutrality of the bridge. No obstacle I had to overcome approached this in difficulty. It became necessary to call every diplomatic weapon and device into action. Never were the jealousies of nations more conspicuous, never did the federation of the world, the magnificent dream of the brotherhood of man, appear to be further from realization. But the opposition at last yielded to unswerving hope and persistent effort, and a wider statesmanship finally prevailed over shortsighted views and a mistaken policy of selfishness. Perhaps, after all, it was interested purpose that succeeded in the end in turning the balance, for the highest disinterestedness is also the most profound selfishness; to seek the good of others is also eventually to insure our own good; "Cast thy bread on the waters" is a maxim based on self-aggrandizement. This may have been, therefore, one of the reasons that induced governments and capitalists to waive their hates and prejudices and cast their money on the stormy waters of the Atlantic.

The co-operation of the nations was obtained by each giving guarantees for the interest upon an amount of stock proportioned to the actual inter-

est of each in such a scheme, until the line proved to be self-sustaining. These interests were proportioned not only according to the capital the subjects of each government already had involved in commerce and ships, but also according to the indirect advantages it derived from intercourse between the continents. Naturally this was a question of excessive difficulty, which could only be arranged by a court of arbitration composed of men of the highest qualifications. A point of the first importance was to agree on the purchase of every transatlantic line of steamships by the representative governments, which guaranteed to the owners a low but permanent interest on their capital. This step was accompanied by a collective edict forbidding the employment of steamships in the north Atlantic trade for a period of ten years immediately succeeding the opening of the great bridge to commerce and travel. During such an interval it was reasoned that the enterprise ought to be able to demonstrate its right to be.

This was the turning point in the inauguration of this enterprise. I felt that there was no longer any reasonable doubt of ultimate success after terms had been arranged with the proprietors of transatlantic steamship lines. It should be stated here, however, that while affording us these guarantees and aids to success, the governments established, per contra, certain wholesome restrictions in regard to fares and freights and the watering of the stock which were intended to prevent the existence of a

huge, irresponsible monopoly that would in the end defeat the very objects for which the bridge was constructed.

The eastern terminus of the bridge was fortunately not a matter requiring much discussion. The natural conditions at once suggested a point on the south-western coast of Ireland. This was felt by many to give England undue advantages, especially if, in case of war with continental powers or the United States, she should choose to bar passage across her territory to neutrals or aliens. But this dilemma was avoided, not only by a solemn compact by which that power bound herself not to throw hindrances in the way of passage for all intending simply to cross Great Britain on a continuous journey without stopping; but England also agreed to grant permission for excavating the tunnel under the English Channel to a mixed company, and also at her own expense to carry a marine railway, like the one on the Atlantic, across St. George's Channel from Holyhead to Dublin. It was also the general opinion that the fact of the eastern terminus of the transatlantic bridge being in Ireland was a compensating advantage to the continental powers. Ireland has never been suspected of being favorably inclined toward England, and in the event of that government showing bad faith in the conduct of this enterprise, the Irish could be invariably counted on to co-operate in bringing her to terms.

All the preliminaries having been finally disposed

of to a degree satisfactory beyond my utmost expectations, and, the first installments of capital having been subscribed, the next stage in the enterprise was that of construction. The president of the road, who conducted the financial department, was Victor Centimillion, Esq., whose French, English and Dutch extraction gave him audacity, confidence and pertinacity. The management of the works was naturally intrusted to my charge. The chief superintendent under me was Mr. Prosper Adamson, whose reputation both as a civil engineer and a commander of men was already widely established. The result has more than justified the confidence placed in his fitness for this very responsible position. My chief secretary was a young man of moderate experience but great ambition, and an ability that showed unusual promise of development during the preliminary negotiations. His name was Alfred Lawrence. I mention the name of these gentlemen as it gives me an opportunity to record how much the success of the Transatlantic Railway is owing to their sagacity and skill. In the selection of workmen there were certain absolute rules laid down to which every man was obliged to subscribe on entering this service. Men were selected for their fitness alone, without regard to race or labor organizations; they were paid according to the quality of the work and the risk involved; merit was to be recognized, and in all cases of dispute the maxim was arbitration, but not dictation. He who, being once engaged, undertook to act at variance with these rules was discharged on the spot and never re-engaged. It is almost needless to say that never did labor and capital work together more harmoniously than on the Transatlantic Rail-way.

The preparation of the various parts to be used in the construction of the bridge was awarded to contractors, and as far as possible to those who already had a plant. But in order to reduce the time, labor and expense of placing the pontoons in position, the contracts for constructing them were equally divided between the builders of Europe and America. The immense natural resources of Newfoundland, a little known and greatly neglected island, now found their opportunity for development. Perceiving, after several visits thither, the immense possibilities for capital invested in Newfoundland, I had already formed a company to purchase large tracts of the mineral portions of that island before I had announced my intention to undertake the transatlantic bridge. The affair was managed so cautiously that we were able to purchase at moderate rates. Still further to lull suspicion, we allowed the investment to lie idle for a time, well aware that it would be worth more before it would be worth less. The advantages of this arrangement now became apparent, for this very company of capitalists formed the nucleus of the new transatlantic company, and the vast lumber and mineral resources of Newfoundland contributed not a little to the success of our colossal enterprise.

The railway was, of course, to be laid on a bridge composed of a line of floats or pontoons, but the problems to be solved presented serious difficulties. The chief were security and solidity—security from accident, and solidity that would permit the trains to pass without jar or oscillation. The latter point was necessarily of the utmost importance, for without assurance on this score the road would be useless. But if we could be successful in overcoming oscillation, that did not necessarily imply safety. The two problems were therefore distinct, and this fact added enormously to the cost and the difficulty of the undertaking. The waves of the North Atlantic sometimes present a depth of forty feet, and more rarely of forty-five feet, from crest to hollow; thirty feet is not uncommon, while twenty feet may be considered the ordinary height in a gale. These huge billows often come a distance upwards of 1,000 miles, moving forward with prodigious violence. Even in calm weather there is always a languid swell that renders the stability of any object on its surface apparently impossible, and yet at the very outset this was one of the obstacles which required to be definitely overcome, or further efforts to initiate this enterprise would be futile.

Experiment and experience came to the aid of our calculations. It was found that stability could be reached only in one way, costly, it is true; but it was worth the cost. In the present case the

courage required to meet the emergency was moral, that is to dare to venture on the vast outlay the plan demanded, for the mechanical difficulties were such as could be overcome with comparative ease once the requisite funds were provided. The dimensions of the pontoons were not an unimportant consideration, and were therefore fixed by careful calculation. The pontoons were of uniform size; each was 800 feet long and 172 feet wide (a width essential to stability and buoyancy), and ovate at the ends instead of square. The latter feature was intended to meet the direction of the Atlantic waves, as the winds of the North Atlantic in this latitude rarely blow precisely from any one of the cardinal points, but generally incline between them, being, for example, south-west or north-west rather than due west. Pontoons of such form, placed west and by south parallel with the course of the railway, would therefore offer less resistance to the sea than if square. The sides were slightly convex, as being stronger and offering less resistance to the waves; the bottom or floor of the pontoons was nearly flat, and they were allowed a free board of forty-five feet; that is, the top was fortyfive feet above the water when they were ballasted and anchored, and including the average weight of rails, trains and cables.

The size and form of these pontoons has been proved by experience to be as nearly perfect as possible to meet the required purposes, aided as they were by still further precautions to be described in

the sequel. It should be added that in order to assist the escape of the waves and decrease the resistance, the floor of the pontoons was arched, or concave, in three places, which made it resemble the piers of a bridge rather than the bottom of a ship. The inner skin, or floor, attached to a keelson resting on the top of these convexities was, however, straight, an essential point in giving strength to the entire fabric. The pontoons were constructed of the best iron, with a double skin, as suggested above, or one hull within another; the hollow space between the two hulls was five feet wide, subdivided into air-tight cells. The inner hull was also divided into four compartments, so constructed as to be of actual service in case of need rather than as perfunctory devices for advertising the strength of the road, and in reality victimizing an unsuspecting public.

The pontoons were placed 200 feet apart; they were connected by six massive chain cables. But in addition to this there was an immense continuous cable of wire in sections a mile long, attached to the top and to the bottom of the pontoons on each side, thus giving a continuity of strength. While the great bulk and united strength of the different parts largely contributed to stability, it was still insufficient alone for a work demanding a perfect equilibrium. This result was obtained by anchoring each pontoon. But as this process was clearly of excessive difficulty if not impossible at such depths by ordinary methods, the following

plan was devised which has now successfully stood the test of years. A chain cable composed of links fifteen inches in diameter was dropped to the bottom of the ocean at a distance of one mile from the parallel line of the pontoons. It was laid in sections for greater convenience in handling, the sections being shackled together as fast as they were dropped. At numerous equidistant points hooks or grapnels were attached to it, which would serve to anchor the cable itself to the rocks and sand, although its weight alone would have been almost sufficient. At intervals of 100 feet were attached smaller cables, whose loose upper end was kept afloat by large buoys. When the pontoons reached their stations, the buoys nearest them were brought alongside, and the pontoon was anchored by these smaller cables to the immense cable at the bottom of the sea. Each side of a pontoon was thus held in place by eight cables. The great weight of the large cables, held as they were, too, by the grapnels, while the strain was reduced by the weight of the long scope of the smaller cables, led me to calculate that they would be sufficient, in combination with the surface cables and the great bulk of the main structure, to distribute the strain equally to every part, and thus produce stability. And so it has proved.

But there were other elements of power which tended still further to reduce the strain and increase the volume of strength. It was originally intended to construct only one line of pontoons with four lines

of rails. But further consideration led to the conclusion that if the road should prove a success the travel and traffic would be such as soon to demand increased facilities: another line would therefore become essential. To construct a double line at first would very largely increase the estimates, but on the other hand the additional stability and security of a double line and the decreased danger of the interruption of travel through possible accidents, would tend to give far greater value to the stock. It was therefore decided to lay another line of pontoons parallel with the first, separated from it by a space of sixty-five feet. The two lines, while separate, were also united by a light trestle work of iron moving on swivels at the points of contact, in order at once to relieve and resist the impact of the sea.

It is obvious that a double line of pontoons like this, representing a combined width of four hundred and seventy-four feet, with a free board of forty-five feet above the sea, and with wide intervals of space admitting the passage of the waves, must present great powers of resistance to the impinging rush and beat of the storms, and exhibit scarcely a perceptible motion. It is well known by this time how successful our calculations have proved. But still further to neutralize the action of the sea and reduce the oscillation of the bridge to a minimum, a floating cable was fixed at a distance of 130 yards from each side of the bridge. This cable or boom was sustained

at the surface by large can buoys, constructed with great strength and placed at intervals of thirty-five yards. This cable was prevented from sagging to leeward by being anchored to the cables already dropped to the bottom, which were amply strong and heavy for this double work; the floating cable was in turn prevented from moving away from the bridge by hawsers attached to the pontoons. To this floating cable was attached a net or apron maintained in a perpendicular position by lead weights. While not altogether breaking the force of the sea, it tended greatly to weaken its onset. What was most to be dreaded was the breaking of the surges; a mere swell, however high, is of comparatively little consequence. It has long been demonstrated that a little oil distributed over the surface of the angriest sea would greatly diminish its power. The writer was one of the first to bring this fact to the attention of the public in a little work entitled "The Multitudinous Sea." accordance with this fact every buoy attached to the floating cable was provided with a supply of oil in a canvas bag near the top which was replenished from time to time. Whenever the waves washed over the bag they carried away a certain amount of the oil which, spreading with inconceivable rapidity, produced a glossy film that broke the force of the sea before it reached the pontoons. Thus the bridge never received the full power of even the heaviest storms.

The laying of the road bed was a problem requir-

ing the nicest calculations. The question was to combine firmness with flexibility, strength with elasticity. With either of these elements lacking all our labor would have been in vain. The methods adopted to reach the end in view may be briefly described as follows:

The pontoons were 800 feet in length and 200 feet apart endwise. There were four sets of rails on each line, two for passengers and two for freight. Besides these there was a narrow line on each with switches for the accommodation of the hand cars of the line workmen. Each pontoon supported three trestle frames, on which the rails were laid. Each of these divisions of trestle was pivoted in the center upon a ball and socket joint attached to a massive bed of steel in the bottom of the pontoon. These trestle frames were carefully balanced, and were joined with elastic buffers to the opposite ends of the adjoining frames, but the ball and socket arrangement and the buffers were intended to maintain the railway always on a level whatever be the oscillations of the pontoons, which in any event could be only very slight. The two end sections of the trestle work extended 100 feet beyond the pontoon and over the water until met by the corresponding trestle of the opposite pontoon. Thus it will be seen that the railway of one pontoon extended 1,000 feet, and that a trifle under six pontoons were required for an English mile. This vast system of trestle work added another great element of strength and stability to this stupendous causeway, both because of its weight and by the weight of the union of parts in a continuous whole. I should have previously stated that the pontoons were also rendered more firm by water ballast, which, with the weight of the trestle and rails, immersed them about twenty-seven feet. It is well known that a heavily laden ship rises and falls less in a sea than one that is, as they say, "flying light."

Such was the complex system devised for traversing the Atlantic. But this description only covers part of the numerous details essential to bring it to a successful issue. At the risk of taxing the reader's patience, I must give an account of operations scarcely less important to the working of the bridge. It was clearly impossible both for safety and convenience that such a distance should be traversed without intermediate stations. It was, therefore, decided to begin by the construction of nine stations; others could be added afterward as required, if warranted by favorable pecuniary returns.

These stations were built like immense rafts, being in point of fact floating islands maintained in position by anchorage, and aided in stability by their vast bulk. The means selected for holding the stations in place has thus far proved all that could be desired. Old hulks of iron steamers no longer in service, and of large tonnage, were filled with cement until they reached the extreme limit of flotation. Cement is superior to stone as forming a solid mass that would retain its shape even if the inclosing iron hull should fall apart, and it would also harden by contact with the water. Fifty of these hulks were towed to each point where it was proposed to construct a station. Around each three great chain cables were firmly attached; the other end of the cables was retained at the surface while the hulk was flooded and sunk to the bottom of the sea, where it represented a rock containing from 1,000 to 1,300 cubic yards of concrete solid as rock. The dead weight of the concrete was such that it would have been impossible to place a larger amount in the hulks without their sinking before they could reach the intended point.

The platform of the station was constructed of a nucleus represented by a hexagonal pontoon 200 feet in diameter. Besides being anchored to the fleet of sunken hulks, it was steadied by being attached to the submarine cables which at these points were doubled for several miles. Around this central pontoon was collected a number of quadrangular pontoons, slightly longer than the sides of the central one. They were ranged in several exterior lines around it, and so fixed and protected by massive fenders that their sides never could touch and grind together, thus avoiding the risk of serious damage. These pontoons were steadied by water ballast and kept in place by being attached to the cables fixed to the rocks of concrete. Over all was a firm platform uniting the entire group of

pontoons in one solid, circular fabric, nearly 400 yards in diameter and forty-five feet above the sea. The platform, however, was several feet higher, being plumb with the railway. The very size and solidity of this compact mass gave it a power to resist the onset of the highest surges, even without the aid of the anchoring cables. When walking over it one could hardly detect the slightest tremor even in the heaviest gales. We did not deem it prudent, notwithstanding, to dispense with the use of oil in severe weather.

Each of these stations was provided with a draw in the bridge in order to afford passage to vessels bound north or south, although this was not of frequent occurrence. While the lights on the bridge indicated its position for some distance at night, yet it was deemed necessary also to fix a calcium light of great power on the top of an open iron tower erected in the centre of each station, and visible fifteen miles. The stations could prove harbors of refuge to sailing ships moored under their lee in stormy weather.

A hotel was also attached to each of these railway stations of graceful design and offering every comfort and attraction to those who desired to break the journey. It was forbidden to erect any structure on these floating islets over one story in height, but this rather added to the charm of these unique resorts, which were leased to different parties in order by competition to maintain the high quality of merit intended for them. Each

hotel was surrounded by cool verandas and decorated with gay banners. In front of each was a small garden, whose well-ordered parterres were superb with their harmonious arrangement of flowers. In winter a roof of glass was raised over these miniature botanical paradises. The menu was daily provided with the choicest fruits and meats of Paris, London and New York; the fish were caught from the bridge itself, and, it is needless to say, were always fresh. At his breakfast every morning the guest not only received the papers of both continents, but also found by his plate a daily bulletin containing the latest telegraphic news and arrivals, printed on the island. At evening a band discoursed music over the lone sea waves and the fair ones who by moonlight strolled over that mystic islet and watched the luminous trains shoot across the dark sea might at times almost fancy that they were mermaids of the

I speak of all this as if it were in the past tense, because it is several years since I have seen the Transatlantic Railway, having for health and repose removed to Madeira, and my mind dwells on it as when it was being built in the days when to superintend its construction demanded all my energies and enthusiasm. But I ought really to speak of this enterprise in the present tense, for not only do these island stations which I have described still exist, but they have become so popular that they have been greatly enlarged, as I am told, and num-

erous visitors flit from one to the other during the genial months of summer.

One great advantage enjoyed by this railway was the absence of dust and cinders. Of the former of course there was none. The atmosphere, as the train flew over the blue sea, was always crisp and pure, while of cinders there could be none, nor mephitic smoke, because the motive power employed was electricity. It was partly as a result of the urgent requirements of the Transatlantic Railway that electricity as a motor was brought to perfection. The engines thus propelled were naturally lighter than locomotives using coal, and the need of tenders was obviated. Thus there was also no occasion for the transportation or storage of coal. It is evident that herein existed a vast economy in the space and energy required, as well as in the number of employés.

At night the bridge was illuminated its entire length by electric lights fixed sufficiently near to cast a glow over the railway from continent to continent. On the interruption of the light at any spot trains were brought without delay to a full stop, in order to ascertain the cause and prevent a possible accident. A perfect system of signals was devised, and each station was connected by a submarine electric cable with every other station, as well as with the main land, being thus independent of any breaks that might occur in the bridge itself. Fleet and powerful despatch boats were kept at every station, ready at a moment's

warning to carry assistance wherever a break might occur. Thus an enterprise that seemed hazardous to the last degree was made uncommonly secure through the use of extraordinary precautions and the employment of sleepless vigilance.

But one danger there was from the outset, which was not only a standing menace to the existence of the Transatlantic Railway, but actually threatened even its inception. To be sure it was only during three or four months of the year that peril was to be seriously apprehended from this source, but these were the very months when the demands on the railway would be the most severe, and when a serious accident might prove fatal to a continuance of travel on the railway. I refer to the ice which in the spring and early summer comes down from the north in silent, spectral fleets. It was not only useless, it was madness, to undertake the construction of the Transatlatic Railway until a sure means had been found to overcome this tremendous obstacle to success. Long and seriously did I reflect and experiment on this appalling problem. The task was one of unspeakable difficulty. It occurred to me that dynamite would prove an effectual ally if aided by the efficient torpedo boats of which so many varieties have been invented. By repeated experiments we ascertained that, given sufficient dynamite, the largest icebergs could be exploded over and over again until shattered to harmless fragments. the most difficult question was to find them when the fog prevailed; occasions would occur when no vigilance or precaution would avail to discover them in time. One iceberg gliding majestically through the bridge and rending it asunder as if it were made of straw would have produced a tumble in the stock of the Transatlantic Railway that all the bulls of Wall street and the bourse could never overcome. The expense of fighting icebergs was also found to be entirely beyond the utmost limits of our financial resources, even if such means had been sufficient to solve the problem.

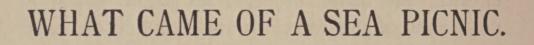
It was therefore deemed expedient to deflect the line of the bridge in a more southerly direction than first proposed, causing it to strike the Gulf Stream just below the point where the ice is dissipated by contact with the warm current from the Gulf of Mexico, and thence continue it to Boston Bay. This change added greatly to the first estimates. But, on the other hand, the cost of this addition to the line was far less than the prodigious expense of constructing and maintaining a vast fleet of torpedo boats, which would still have been only an incomplete protection against a peril that sooner or later might have involved enormous destruction of life and property. It must also be taken into the calculation that we were able by following the new course to avoid laying a railway across the wastes of Newfoundland or bridging the swift current of the St. Lawrence in the wide strait between Cape North and Cape Ray, a work that would otherwise have been essential for a continued railway passage. The completion of this great enterprise finally demonstrated what I had been fully convinced to be the fact from the outset, namely, that it was entirely feasible, the greatest difficulties to overcome being moral and financial.

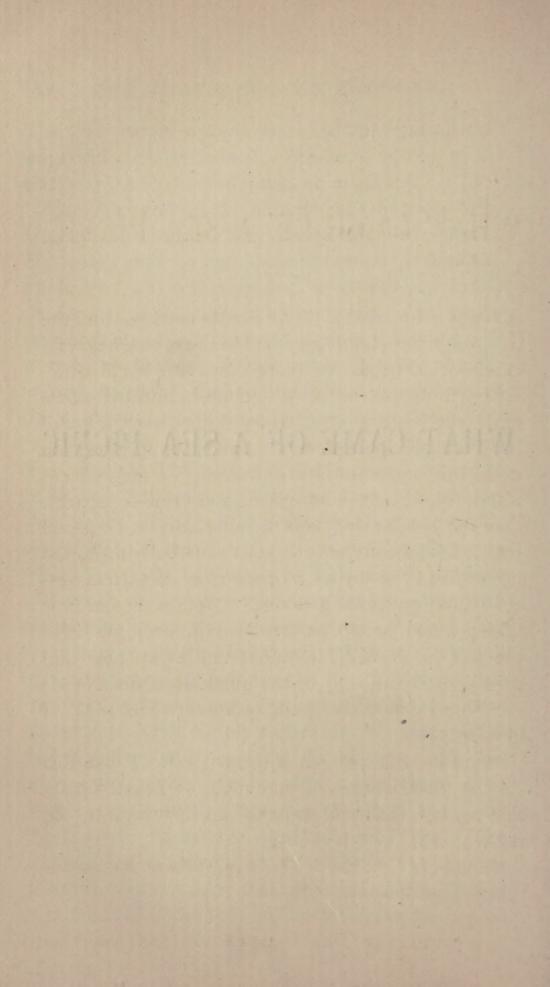
The financial obstacles were, indeed, beyond description, and more than once after the bridge was actually commenced did it seem as if it must be definitely abandoned, so great was the difficulty of infusing confidence in the minds of the money kings. It is a long and tedious task to repeat the details of the process by which many hundreds of millions of additional capital for the completion of the railway were obtained by subscription or floated on the market in bonds. When I look back to that crisis and recall the effort expended, the devices employed, to accomplish our end, I am astounded at the courage displayed and the success achieved. I am not mistaken in assuming that such a tax on human energy has never been surpassed.

It is now twelve years since the great Transatlantic Railway was thrown open to the public. To say that the road has grown in popularity every year is a mild statement. The travel between the two continents is already nearly two hundred times greater than in the old steamship times. A traveler may go from the Pacific to the Caspian without changing cars: while the freight traffic has reached such a volume that I understand it is now proposed to lay another line of pontoons for the further accommodation of the increasing demands of trade.

The time is not distant when similar marine railways will be constructed elsewhere, adding to the prosperity and the happiness of mankind.

The chief end of the human race appears to be at present to reduce the size of our little planet. Not being able by actual compression to diminish its dimensions, scientists and inventors practically produce a similar result by increasing the means by which space can be more rapidly traversed. it took the first savage ten years to make the circuit of the globe, then to him in that remote period the world was really seventy times larger than it is to the man of our time, who can start from New York via the Transatlantic Railway and return to it via San Francisco in fifty-five days. In proportion, again, as the world grows smaller man grows larger by comparison with the diminishing planet on which he treads, and hence he who aids to produce this result assists the expanding race to enter with more ease upon the contemplation of spaces far more vast in another existence. This is the way it appears to me, but perhaps the time is not yet ripe for a general and cordial acceptance of these conclusions, which I simply record in this place, satisfied that they will bear the test of time. In this apparently frantic pursuit after speed there is no longer any doubt that the race of Adam is following a great, immutable, and universal law. The annihilation of space tends to minimize the importance of the material and physical, and indicates that the soul is the type of the universe, having no prescribed limits for its scope and habitation.





WHAT CAME OF A SEA PICNIC.

I T was a fine night. The Southern Cross and the Magellan clouds gleamed in the serene heavens. A clipper ship was running down the trade wind. Every thing was set alow and aloft, and the noble craft was reeling off fourteen knots, with a broad band of phosphorescent foam rushing along on each side, and uniting at the stern in a magnificent wake resplendent with green and crimson sparks. One felt exhilarated as if by an elixir, as he paced the deck and watched the vast sails bellying to the breeze, and the joyous movement of the great vessel bounding toward home. Captain Foster was taking a final smoke before turning in at eight bells. He was in a cheerful mood, and every now and then spoke exultingly of the qualities of his ship.

"Where was she built, Captain Foster?" I

inquired.

"She was built, sir, at Newburyport. I love this ship as if she were my own child. If I hadn't married my wife I shouldn't have had this ship, sir," he replied.

"How did that happen? I infer there was some-

thing unusual about it," said I.

"Yes, there was something curious about it all. When I went to school Amy Fernald went there too, and I took a great fancy to her. She was sixteen and I was seventeen. But she was rich; her father owned ships and traded with the East Indies. But my folks were poor, and my father sailed in the ships that Amy's father owned. After awhile her people began to hear that I was sweet on their child, and they told her she must take no further notice of me. To make the matter surer, they sent Amy away to a boarding-school, and then I could see nothing of her.

"This maddened me and made me ready to listen to my father, who said it was time I should be earning a living, instead of wasting any more time at books and fooling with the girls. He wanted me to go into a store; 'one sailor's enough in a family,' said he. But I had a hankering for the sea, and thought, too, that it was better for me to get away from the place, if I couldn't see Amy Fernald.

"I ran away to Boston and shipped for Batavia. We were gone fifteen months, and when I got home I was in good training, for there wasn't any thing bad about me. After the first few weeks I got so that I could furl a top-gallant-sail or pass the weather earring with any of them. I said to myself, too, that if I applied myself I could get a ship of my own some day, and if I weren't good enough for Amy as I was, I'd be up to her when I walked my own quarter-deck.

"When I got home I was twenty-one. I found Amy was there too. I hadn't seen her for more'n two years. I met her in the street; she was dressed up handsome as a picture, but I had on the clothes I wore at sea. But it didn't seem to make any difference to her. She stopped and spoke to me and asked so many questions about me, where I'd been, and what I was going to do, and smiled so pleasantly, my heart jumped from the keel right up to the main-truck, just as lively as a flag h'isted on a sunny day and waving in a fair breeze.

"After she left me I thought it all over, and I guessed that the least I could make out of her was that she liked me pretty well. At first this made me jolly as a cricket; but afterward I felt greatly depressed, for even if she loved me, how was I, a poor sailor, a-going to get her; and even if I did, how should I support her in a decent way?

"'Anyhow,' said I to myself, 'the only way is for me to get another berth. It's the only chance for me.' While I was ashore, therefore, I studied navigation with my uncle, who'd been mate of a ship, and then I looked around, and being lively and giving my whole attention to my work, in a year I got a place as second mate.

"All this time I was just thinking of Amy Fernald day and night. I'd made up my mind that she should be my wife, and I was pretty determined in those days. But when I came home again as second mate, and with three hundred dollars salted down, the first thing I heard was that a chap named

Dyce—Algernon Dyce, or some such big-sounding name, was making love to her. He had lots of money, came from an old family in Boston, they said, and her folks were tickled to death about him, and wanted her to marry him right out-of-hand, as you might say.

"'If Amy loves him,' thought I to myself, 'I won't bother any more with such a fickle-mind creature. But if so be she doesn't care for him, then let him lookout whenever he comes foul of my hawser. For she's my girl, and I won't stand any meddling from nobody, I don't care who he is. Dyce be hanged! he'll feel sick when he sees me, that's all.'

"This was not just the proper sort of thinking, for he had as much right as I to love a pretty girl, at least if he didn't know how I felt about her. Well, Mr. Fernald at this time had a large ship launched. He called her the Hyperion. They were going to take her around to New York to load for Bombay. It was fine summer weather, on the edge of September, and although the line gale comes on about that time, they calculated to get the clipper around to her berth in New York before that. She was the finest ship he had built, and he was so proud of her, he invited a lot of friends to take a pleasure v'y'ge to New York. 'Twouldn't take more'n two or three days; with a northerly breeze the ship could make the run in thirty-six hours from dock to dock. The top-sails were sheeted home and the anchor was a-trip. I was standing on the wharf looking at the ship and feeling like the devil, for I'd just seen Amy and Mr. Dyce go on board with the rest of the party, and there I was left out in the cold. People make love quickly at sea, and my heart misgave me, that it was all up with my chase for Miss Fernald.

"I was turning away to go home, when I saw a boat put off from the ship with the captain in the stern-sheets; when they got to the wharf, I saw them landing a sick man. Then Captain Cooper came toward me. When he got within hail he said: 'Mr. Foster, my mate's taken sick; he's got a fit, and I want a man right away to take his place. Do you want to go with us to New York? If we get along well, I'll give you the first chance for the round v'y'ge to Bombay!'"

"'I'm with you, Captain Cooper,' said I."

"Jump right aboard, then; never mind your chest; I'll lend you a pea-jacket, and you can send for your things from New York. We've got to get away while the tide serves."

"In five minutes I was on the forecastle of the Hyperion ordering the hands heaving at the windlass, and Amy was on the quarter-deck watching me. The longer I live the more I see that life is made up of just such unlooked-for surprises and turns of fortune.

"We hadn't more'n got outside of the bar, heading for Cape Ann with a fresh breeze, than I saw the ship was mighty tender. She was in ballast, but they hadn't stowed enough below and she was heavily sparred and crank. 'Twasn't long afore

we had to hand the royals, and I saw we were in for more'n two days' run, unless the wind favored us, for we couldn't carry on if it came on to blow, nor make much beating to windward flying light under short sail.

"This was just what I wanted. The longer we were out, the better my chances to cut out that Boston chap, you see? Just as soon as we got where we could feel the swell a-heavin' up, I was sure of him, for he began to look white about the gills, and didn't laugh quite so hearty. But Amy looked game, and I knew she wouldn't give up quite so quick. And when it was my watch on deck, I thought to myself I'd have my chances for putting in a good word for myself.

"We got off past Nantucket Light by mornin' and then it fell a dead calm. Light and baffling winds set in for a day or two, and then the glass began to fall. Captain Cooper looked anxious, I tell you, for we were short of provisions, having taken aboard only enough fresh grub for a few days. A tremendous swell was a-heavin' up from the south'ard and the passengers didn't dance any more on the quarter-deck, but lay below in their bunks thinking 'twasn't such fun after all, going to sea for a picnic. The glass kept falling, and the wind began to hum from the sou'west and the longer it blew the harder it blew. On the third day out the sun didn't rise, at least we didn't see it, there was such a bank of clouds all around the offing. At noon we were hove to on the star-

board tack under close reefed top-sails and staysails, and a very wicked sea piling up from sou'west; not that it was blowing so hard yet, but it was agoin' to blow harder before it blew less, and the ship was tender as a new born baby.

"After the men had eaten their dinner, Captain Cooper said to me: 'Mr. Foster, send down the royal and top-gallant yards. We are in for the line gale and no mistake, and the ship ain't over and above stiff.'

"It was a big job, I tell you, but it wasn't done a minute too soon, for when they struck eight bells it was as dark as night, and blowin' a regular screechin' hurricane. The ship was so light, she didn't take in much water, but she lay over almost on her beam ends, and it wouldn't have taken much more to make her turn her keel wrong side up. This was a little more than I'd bargained for, and I felt my responsibility a great deal more, because the girl I loved was on board. I made up my mind then if ever I married Amy Fernald I wouldn't take her to sea with me. A man faces danger far more readily, you see, when he knows that those he loves aren't placing their lives in his charge.

"The wind backed around to south-east and north-east. We didn't dare run, for the ship steered so wild. We wore ship when the watch changed at midnight and put her on the other tack. At four bells there was such a tumult of the winds and waves there wasn't a soul

asleep aboard, and the ship lay over so far there warn't no fun in it. We were hove to with only a bit of canvas laid against the mizzenrigging, the sea making a clean breach over the weather-bow, and the lee-rail under water. Then we saw a terrible squall a-comin'. It was so dark you couldn't see the length of your hand. You couldn't hear yourself talk. The wind just cut off the words like a knife. We must right the ship or she'd go over in one of them squalls. The word was passed to cut away the mizzen-mast. It went by the board and the vessel began to pay off; but when she got into the trough of the sea, we had to cut away the main-mast to keep her from foundering. The fore-top-mast went with it just above the cap. This saved the fore yard.

Slowly the poor maimed creature payed off before the wind, after we'd got the wreck alongside. The wind shifted to nor'-west, but bless you, what could we do against it. It blew harder than ever out of that quarter, and there was only just one thing to do and we did it. We goose-winged the foresail and scudded. For twenty-four hours there hadn't been a bit of warm food on board. Fore and aft there had been nothing to eat but hard-tack and salt fish. This was before the day of canned meats, you know. 'Twasn't no use tryin' to light a fire in the galley, the sea came over in such quantities, and the ship labored to that degree you had to hold on all the time. About ten of the mornin' I could stand it no longer; I kept thinking

of poor Amy, without any tea or hot victuals to warm her up. I made shift to heat a little water, and made some tea, and went below to serve it to the ladies.

"Oh, thank you; thank you, Mr. Foster," said Miss Fernald, her eyes brightening up when she saw me. "How nice this is, how thoughtful of you to bring it to us. When is this dreadful storm going to stop? Shall we ever get home again?"

"Don't worry yourself, Miss Amy," said I. "It'll moderate by'm'by, I guess, and with smoother water 't won't take us long to get to New York."

"Just then the ship took an upward lift; then she started to roll almost to her foreyard arms; and then she seemed to stand still half a second. I knew what was coming and held my breath. A tremendous green sea crashed over the stern, breaking in the skylight and half filling the cabin with water. It was an awful moment, for if another sea like that struck us it would burst the decks in. But nothin' came after it. I flew on deck and found Captain Cooper and two of the men had been washed overboard, and the quarterboats too. We could do nothing to save them, and I was now captain of the ship; but by the way the gray seas were rolling up astern of us, and hanging over the quarter a-hungering to swallow us up, I didn't expect to be captain very long of this or any other ship. There was a bark hove to dead ahead of us. At the rate we were going we'd be right on her before we could come to. She was lying on

her beam ends and was wallowing very heavily, as if she were full of water. There was but one chance for us, and a tough one it was. She might go down before we reached her. I took the weather-wheel myself and brought the *Hyperion* a mite up to starboard. I didn't want to make her broach to in such a mountainous sea as was running. The stranger went down just as we reached her; the *Hyperion* riz up on a big sea and actually scudded right over the taffrail of the sinking vessel. Her mizzen-mast scraped our port-quarter and tore away the mizzen chains. It was the closest squeak I ever saw in my life.

"We manned the pumps and found the ship was still sound, and toward night the lulls began to grow longer and the glass began to rise. The back of the storm was broken. We were now well across the gulf-stream with nothing but the foremast standing, the prevailing winds being from the westward, and our stock of provisions running low. I therefore concluded to bear away for Bermuda and refit at Georgetown. One thing I meant to make sure of this time. I'd have more ballast put on board. If it hadn't been for a foolish economy, which you find constantly exhibited in the management of the merchant marine, we'd been in a very different place by this time and like as not snug in port.

"The next day it came on a dead calm. Our passengers all came on deck. They didn't look so jolly and rosy as they did when they started. It

had been any thing but a pleasure cruise for them, I warrant you. It was a solemn time they had talking it over, and we were not out of the woods yet by a long shot.

"'I don't see what you expect to gain, Mr. Foster, by heading for Bermuda,' said Mr. Dyce to me. "I should think it would be better to keep in the track of ships and let them take us off this clumsy raft before we starve.'

"" Mr. Dyce, said I, through the providence of God I'm master of this ship for the time being and must allow no interference with my actions. I hope, Providence permittin, to get you all safe home, but I can allow no interference with my authority."

"He didn't like this and turned away mutterin' to himself. A while after I heard him say to Miss Fernald, 'I should think you might persuade him to change his course. Here we are getting further out to sea every minute. It's a chance whether any of us ever get home alive. It seems to me, as the ship belongs to your father, you might induce him to head up toward the west. It's our only hope, I'm quite sure, Miss Fernald.'

"Then I heard her say:

"'I'm certain my father would never permit such a thing as interference with the authority of the captain on board his own ship. I have heard that Captain Foster is a very promising seaman, and I think we ought to place confidence in his judgment. I, at least, shall not say any thing to indi-

cate any doubt of his capacity to command this

ship.'

"The calm proved to be a weather-breeder, as I feared. After a great gale in the fall of the year a storm is liable to repeat itself in a day or two. I don't need to say how terrible anxious I wasthe ship dismantled, short of provisions and water, and cranky as the deuce. We might have been a hundred miles from the Bermudas, when a gale sprung up from the north'ard. I'd seen it coming in the big swells heaving up from that quarter; I'd made up my mind what to do, in case of another blow. There were two things to consider, the safety of the ship and the lives of those on board. I was going to save both if I could, but if I couldn't do both, I'd look out for the people. Those who own and sail ships don't always act as if they thought human life worth a blamed sight more than any ship that ever floated.

"But before it began to blow hard, I found I had another job on my hands. Dyce wasn't a coward, but he'd seen all he wanted of the sea for one time, and to do him justice, I suppose he wanted to see the lady he was trying to marry, safe on shore again. I shouldn't ha' blamed him if this had been all, but he thought he knew more 'n any body else, and he'd made up his mind that I was too young and inexperienced to have charge of a large ship in such uncertain weather.

"So what does he do but talk with Mr. Jones, the second mate. After the nature of second mates,

Jones was down on me when I was mate, and he did not like me any better when he found that I'd become captain. For I was younger than he, both in years and in service. He meant well, but he wasn't over and above bright, and Captain Cooper probably knew that when he asked me to be mate instead of him. And he was a man who could be talked into any thing by those who could palaver and din it into him. I was below stealing a few winks in my bunk, for I was mighty tired with what we'd been through, and expecting more of the same sort, when Jones and Dyce were getting up a plot to force me to head to the westward instead of keeping on for Bermuda. As I was going on deck at eight bells, the steward who was in the cabin, told me it was his duty to warn me that there was a mutiny a-brewin' to force me to head to the westward, and if I refused they were going to put Mr. Jones in my place. I didn't let on that I knew any thing about it when I went on deck but ordered Mr. Jones to call all hands to set up a jury mast on the stump of the main-mast. The weather looked threatening and I ordered them to be lively about it.

"When the men were all gathered in the waist and began to handle a spare main-topmast to h'ist, Mr. Jones suddenly came aft with a number of the men, among whom I noticed Bob Murphy, a regular out-and-out sea lawyer. Them's the fellows who worry crews into mutinies with their impudence and long tongues.

- "'Captain Foster,' said Jones, 'if you don't mind my saying it for these 'ere men and for the passengers we've got aboard, I want to say, sir, that it's our opinion we should take a course to the westward. We don't see no use in running for Bermuda.'
- "'Mr. Jones,' said I, 'I don't see that you or any one else has got any thing to say about the course of this ship until we get her to the port for which she's bound. I'm master aboard here, and I give you warning, I won't have any one giving orders to me.'
- "'Mr. Foster,' answered Jones, 'we'd have you know that we've made up our minds on this 'ere subject. The passengers are with us, and I guess you'll have to give some attention to what they want.'
- "'Yes,' said Dyce, 'we're all agreed, Captain Foster, that you should alter the course of the ship. And if you don't feel like carrying out the wishes of the majority, you should at least give up your command to Mr. Jones, who is doubtless able, as he is willing, to carry out our wishes.'
- "I saw this wasn't no time for talking, but for action. I could see, too, that the men were unwilling to go into such a thing, and some of them sided with me. I stepped up to Jones, and fetching him a crack on the side of the head, knocked him flat. Then I drew a revolver and dared him resist at the peril of his life. I called on the boatswain and the carpenter to help me; they came very readily; not a

man lifted a finger against me, for they saw that I knew what I was about, and was equal to the occasion. I ordered them to lock Mr. Jones in his stateroom. I did not want to put him in irons, as we were short-handed and I might need him. I then turned to Mr. Dyce and said to him:

- "'Sir, I gave you credit for more sense than to meddle with the master of a ship in the discharge of his duties. As you are the invited guest of Mr. Fernald I shall not treat you as you deserve unless you give me cause to do so. But for the rest of the v'y'ge I must request you to remain in the cabin.'
- "'But, Captain Foster, you don't mean to say that you propose to give orders to me!' he exclaimed, his eyes sticking right out with amazement, and his cheeks coloring with excitement and shame, for Miss Fernald and some of her friends were on deck and had seen it all.
- "'I do indeed order you, Mr. Dyce, to remain below for the rest of the v'y'ge. I hope you will not oblige me to use force to carry out my orders.'
- "He said nothing more, but went below as peaceable as you please, but I could see he was trembling with rage. The ladies were on deck when this happened. I presumed they wouldn't like it, but when I looked around and saw Amy I knew that it was all right. Like her friends, she looked serious, and perhaps a bit alarmed; but when she looked at me her face lighted up and she

smiled approvingly. I felt that she was on my side and would stand by me if ever we got to

port again.

"But there wasn't time for thinking and talking any more about this, for it was breezing up fast and I saw we were in for a wild night. I called Bill Stephens aft and told him he might serve as mate until further orders. I'd made up my mind that the best thing for us to do was to get to the south-'ard among the Bahamas, and refit and provision there. With the Gulf Stream and the prevailing westerly winds we could then run up along the coast to New York. We could now set a foresail and jib and a jury mainsail and stay-sail, and with these I felt prepared for almost any thing. The loss of her upper spars relieved the ship some, and she didn't feel so much the lack of ballast. I also found a cask of oil on board which made me feel easier, in case we had to heave to again. But we were now so short of provisions that I was forced to put every one on short allowance. This made me feel more uneasy than any thing else about our situation. We were out of the track of vessels, and it was now of the last importance we should get where there was at least something to eat and drink. It blew hard from nor' nor'-west for two days, with a very heavy sea, but we ran before it without any accident; I thought of the ladies below and kept the best men at the wheel. On the morning of the third day after this gale began, the weather being clear, fortunately, and getting warmer all the time, the look-out on the fore-yard sang out, 'land ho.'

"Lord, you should have seen them piling out from the cabin, the ladies with their hair a-streaming in the wind, for they weren't more than half dressed. They had a thousand questions to ask and I declare I never saw a prettier sight than them girls all crowding about me wanting to take a look through the glass and asking what land it was. I'd got a sight the day before and when we took the longitude at eight bells I knew the land must be somewhere near Harbor Island and Eleuthera. By noon we were close to it, and could see the palm groves waving above the sea and the roofs of the houses. I'd been there once before so I thought we could run in without a pilot, although its ticklish navigation getting into Harbor Island around the wicked reef they call the Devil's Backbone. Perhaps you don't know that the water there is shoal among those islands, over a bottom of fine white sand. The water is green as polished emerald and clear as glass. But wherever there are rocks then the water is purple over them and on a bright day you can generally make out to steer clear of reefs if you keep the lead going and have a leading-wind.

"The day was just beautiful. The wind had moderated to a fresh breeze and the air was soft as a lady's hand on your cheek. We got into Harbor Island before night and anchored between Dunmore Town and Eleuthera; it's about a mile between

the islands and and there isn't a snugger port to be found anywhere. The first thing we did was to signal for a boat; our boats, you see, had been carried away. When the boat came we sent right off for provisions. The darkies brought off a pig and no end of vegetables and jelly cocoanuts. We all felt so good to get where we could have a night's rest in peace that I told Jones and Dyce they could come on deck and I'd say no more about it, if they'd mind their own business. The first time for weeks the fragrance of fresh meat came from the galley and after supper the ladies and gentlemen had a dance on the quarter-deck. The new moon shone clear in the west and most of them saw the Southern Cross for the first time.

"The next day I made arrangements to put new spars on the ship. I couldn't expect to rig her there all taut, but I found some old masts and yards there that would do to take us to New York. I gave the passengers their choice to remain on board while we lay there, or to go to a house on shore; or, 'if you like,' said I, 'I'll rig up tents for you in the cocoanut grove on Eleuthera and you can have your picnic in regular style.'

"The ladies clapped their hands and cried, 'oh, that would be splendid.' So it was agreed that we should picnic it on shore. I put up two tents just on the edge of a thick grove of cocoa palms, which stands on the beach near the fields of pineapples that grow on a red earth and which they say are the best in the world. We might have gone over

to Nassau to refit, but we were in a good place, and on account of the ladies, who were all tired out, I guessed we had better remain at Harbor Island.

"The darkey pickaninnies used to climb the trees for us whenever we wanted fresh cocoanuts, and Amy said if it weren't for the folks at home who'd be terrible anxious about us she'd like to stay there all winter. That's the best season there, you know. I noticed she didn't have much to say to Mr. Dyce now and I also noticed that he began to watch her pretty sharp whenever she had any talk with me. So I concluded that he saw she had a liking for me, but I'm sure there was nothing in my manner toward her to show that I could hardly think of any thing else I was so dead in love with her. If I loved her before, I loved her ten times as much now, because a sailor likes to see a woman show courage and spirit, and when such a woman shows confidence in him too in time of danger, it makes him feel better satisfied with himself. But then I didn't mean to take advantage of her, seeing that she was in my charge and that I was on my honor, as it were, not to get her affection while I was commanding her father's ship, and he opposed to me for a son-in-law.

"But you can't always regulate those things in life. Sometimes destiny throws chances in your way in such a manner that you feel it's trifling with fortune to refuse.

"In the calm, moonlight evenings we used to go out rowing in the lagoon. The darkies rowed us in their boats, singing at the oars. I never saw any thing so lovely—the shadows of the palm groves sleeping on the still water, the moon gleaming on the sea, and the muffled roll of the surf on the bar. If I were a poet I would have written poetry then. But anyway, we practiced it, and that to my thinking is better than all the written poetry.

"One night we all went down toward Bottom Cove. The boat was, perhaps, a trifle overloaded, but the water was smooth and if we didn't move about too much there wasn't any thing to fear. The ladies sang 'Home, Sweet Home' and 'Oft in the Stilly Night,' and then we talked about the folks at home and wondered what they were thinking about us, and whether they thought we were all lost at sea. We expected to sail the next day, if the weather held good, and this was our last row at Harbor Island. We'd all enjoyed our stay there so much that we almost felt sad to think that our dream of happiness was over. I know how I felt, for I thought to myself perhaps I shall never have such another time with the girl I love.

"Amy was sitting at my side. The moon had gone down and the purple gloom of night concealed every thing. Only the stars were gleaming over head, and little by little we stopped talking as we drew near the camp on the beach. I didn't feel like saying any thing with Amy so near me, perhaps for the last time.

"Suddenly I seemed to become aware that she was nestling a little closer to me. I looked around

and her eyes met mine shining in the dark. I took her hand; she did not take it away. Then I knew it was settled and that she was mine.

"I just wanted to get up and shout I was so happy. But I said nothing, only just held her hand tighter until we heard the sea-wind whispering in the palms and felt the boat grate on the sand. Still holding her hand, I lifted her out of the boat and led her to the tent. Then I went aboard the ship, but I didn't turn in till they rung out eight bells for the middle watch. There wasn't a happier man in the world.

"The next day we took down the tents and put to sea. I'd managed to get up a jury mizzen-mast and stumps topmasts, so that we could set quite a good spread of canvas. We also took in a fresh store of water and provisions and forty tons more of stone ballast, and I felt that we were now much more ready to meet heavy weather than when we sailed from Newburyport.

"We took a sou'-west breeze when we cleared the land, and made a fine run to Hatteras. We had a heavy blow off the cape but stood it well, and in ten days were off Sandy Hook and took a pilot. A tug took us in tow in the channel and then we were all right. The v'y'ge home I had said nothing to Amy about the matter that was nearest to our hearts; but from the way she looked at me I knew that she had made up her mind and that it was in my favor.

"We were standing aft near the companion-way,

and I was pointing out the city to her. We were left alone for a moment and I said, 'Amy, if your father says Yes, what will you say?'

"She answered, 'I will say Yes, too."

"That was all we said about our love the whole v'y'ge, but it was enough.

"To make a long story short, the old gentleman came to New York as soon as he got the telegram saying the Hyperion was safe there. He had given her up for lost, and never expected to see his child again.

"The underwriters were pleased enough when they heard how I had saved the ship, and they presented me with a service of plate for my wife, as they said, when I should get one. But Mr. Fernald never could say enough about it, and he told me I should have the command of the Hyperion, for I'd fairly earned it; and, to tell the truth, I think I had. But when I asked him for the hand of his daughter, he looked sober and said he must consult Mrs. Fernald. A few days after I got a letter saying that they'd no objection to me for a son-in-law if I did as well on the next v'y'ge.

"The v'y'ge turned out a great success. made a fine run out to Bombay and home; and when we returned to New York I found Amy waiting for me there. The day we were married the old gentleman made me a present of this ship, and I named her the Amy Fernald.

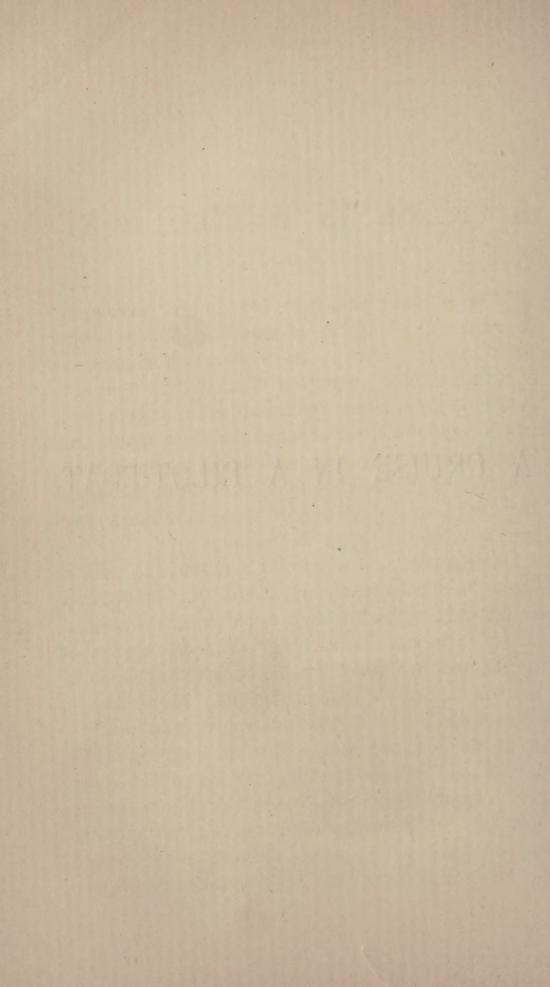
"Soon after we were married I had her portrait took, and that's the picture you've seen hanging in

my cabin. I always have the picture with me when I go to sea. The artist wanted to take her without her bonnet, but I insisted that she should look just as she did the day I met her in the street, when I came back from my first v'y'ge. That's the dress and lace shawl she wore that day, and that's the way, while the wind was blowing her curls about, she held up her fan and smiled at me, until my heart was in my throat and I was in such a state I didn't know whether I stood on my head or heels. Whenever I pass before that picture, I think what a lucky fellow I am, and that there aren't many ship-masters who have such a wife and such a ship.

"But it's struck eight bells and I guess I'll turn in. If this wind holds, we'll be around the cape in ten days, and I hope we'll see the Highland Lights in good time. I propose to stay at home after this v'y'ge, for Amy says she doesn't believe husbands should be away so much from their wives, and no more do I."

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A CRUISE IN A PILOT-BOAT.



A CRUISE IN A PILOT-BOAT.

FEW of those who have heard of, or have seen, the trim pilot-boats of New York Bay are aware what a thorough preparatory education and experience is required of a New York pilot. Nor is it generally known how systematic is the organization which regulates the movements of these pilots, and what hazards they must encounter in plying their vocation on the boisterous Atlantic. The following account of a trip on one of these schooners may therefore be of interest and value:

Having accepted a cordial invitation to take a cruise in the Caprice, my friend Mr. Burns and myself were notified to keep ourselves in readiness to sail at a moment's warning. The schooner was then at sea, but was expected back at any hour to pick up her pilots and provisions. More than a week passed, however, before we were notified to be at the pier on the following morning. We repaired at the appointed hour to the office of the Pilot Commissioners—a low-studded, elbow-shaped room, on the corner of Burling Slip. A massive antique mahogany desk at one side served partially to conceal the busy secretary of the

department, whose position is by no means a sinecure. All the multifarious accounts, together with most of the shore business of the pilots, pass under his eye. Between two windows stood a large and elaborate chronometer clock, including with it a barometer and thermometer, and around the room were ranged a number of ship-like closets or lockers. One by one the pilots straggled in, took a look at the glass, and discussed the prospects of the weather, which was pronounced to be unusually foreboding, with the mercury ranging below twenty-nine degrees and a sky of the most sinister aspect.

By half-past nine, the pilots who belonged to the Caprice having arrived, we started for the pier where she was lying. I confess the prospect of a cruise in such a graceful little craft filled me with enthusiasm. She was ninety-six feet long and twenty feet beam, and drew eleven feet aft. over-sparred, like too many of our yachts, her masts were beautiful sticks and admirably proportioned, without a knot or crack. The cabin was coziness itself; nothing can exceed the comfort of a snug little cabin when all hands but the watch are below, the swinging lamp is lit, and the long steady howl of the gale, and the boom of the seas breaking on deck, blend in a sublime organ-peal-the tumult of the storm often rising above the jests and yarns of the men gathered around the table or lying in their bunks with feet dangling over the side. A stove was firmly fixed in the centre, on a brightly burnished plate of brass. On each side were a stateroom and two berths that could be closed by slides. The galley and quarters of the crew were amidships, and were divided from the cabin by a bulkhead. The crew included four able seamen, a swarthy Lascar cook, a cabin-boy and the boat-keeper. The latter commands the schooner, and takes her back to port after all the pilots have been put on board other vessels. But before that, the boat is under the direction of the pilot whose turn it is to board the next ship.

We put to sea with six pilots, the full complement being seven. These formed a joint-stock company, but while all were licensed pilots, they were not all of equal rank. This matter of rank underlies the whole principles involved in piloting according to the laws of the State of New York, and a résumé of the regulations is therefore pertinent, while the schooner is making sail. The number of pilot-boats licensed to run out of the port of New York is fixed by law; it is now (1887) twenty-two, and they register from forty to Each boat is obliged to carry its seventy tons. number in enormous black figures on the mainsail. These boats are owned by about one hundred and thirty-three pilots, but, strange to say, they are never said to be manned except when left in charge of the boat-keeper. Including pilots and crews, this fleet of schooners gives employment to nearly four hundred men. In this survey we do not, of course, include the New Jersey pilots who sail out

of New York Bay, but are subject to the laws of the other State. This number is by no means excessive when we consider that the foreign entries and departures of vessels in the port of New York are at present over ten thousand a year, while the coastwise entries and departures are nearly four times that number. Coasting vessels, though they often find it expedient to employ a pilot, are at liberty to decline to take one. But vessels coming from, or bound to, foreign ports have no option in the matter. If a pilot-boat can get near enough to hail them, they must either accept a pilot or pay the full charges he would be entitled to receive if he boarded that ship. This law is by no means so unfair as some might regard it. The pilots must devote much time and expense to qualify themselves for their business, and are exposed to great perils. Unless they are protected by the laws from the whims of sea-captains, the profits of pilotage would be so reduced that it would be impossible to induce capable men to enter the service. While it may be alleged that in fine weather their services are often not needed, on the other hand, emergencies frequently arise when a good pilot is indispensable.

The responsibility devolving on a pilot, and the extent of his qualifications, may be partly appreciated when one learns that, immediately on boarding a vessel, he takes command, and is answerable for any accident until he has discharged his duty of taking the vessel in or out of port. If

any mishap befall the ship at that time, he is liable to have his license revoked, and thus lose all further opportunity of plying his vocation. The New York pilot must, therefore, for the good of all concerned, pass through a long and rigorous course of training. He must serve, man and boy, before the mast till he masters every problem in the management of every form of rig. To this he must add a thorough knowledge of navigation. Then he must contrive to obtain the position of boat-keeper or pilot's mate. In that capacity, he must serve three full years on one pilot-boat before he can be admitted for his examination for a license. If through ill-fortune he lose his position, he must begin de novo, and serve the full time on another boat. Sometimes a boat-keeper serves nine or ten years on various boats before his apprenticeship is complete. After all this preparation, he must pass a most rigid examination on all points of seamanship and navigation before the Board of Pilot Commissioners, and exhibit a thorough knowledge of the tides, rips, sands, and all other phenomena for hundreds of miles out from the piers of the East and North Rivers. But even after receiving his license, he is sometimes forced to wait years, until some pilot happens to die and leave a vacancy for him. The first year of pilotage, he is granted a license to pilot vessels drawing less than sixteen feet. If he give satisfaction, the following year he is permitted to take charge of ships drawing eighteen feet. If he pass a satisfactory examination the third year, he then receives a full license, entitling him to pilot vessels of any draught, and is then first called a branch or full pilot.

This matter of draft often gives rise to amusing maneuvers between captain and pilot—the former sometimes endeavoring to evade a correct statement of the actual draft of the vessel at the time, and the latter in turn employing his wits to get at the truth without appearing to doubt the word of the captain. Vessels drawing under fourteen feet pay three dollars and seventy cents a foot; the rate increases by degrees, until ships drawing twenty-one feet and upward pay six dollars and fifty cents per foot.

On receiving his license, the pilot must give bonds for the proper discharge of his duty, and he is liable to heavy fines if he declines to fill a vacancy or to board a vessel making signals for a pilot. He is also required to be temperate in his habits and of reputable character. The proper execution of these regulations is to a large degree insured by the great competition among the boats, and the consequent vigilance of each to detect delinquencies in his rivals.

It is evident that to be a New York pilot is no sinecure, and that the position is one of great responsibility and trust.

In a few moments the Caprice was stealing past Castle Garden, and leaving behind her the towering roofs and spires of the lower part of New York. Nothing could be more disheartening than the pall of sullen clouds that hung over the bay. There was scarcely any wind, but the glass and the sky indicated that we were either in the centre of a revolving storm or that one was rapidly approaching. But there were also signs of a shift of the wind into the north-west, and a few vessels bound south had concluded to venture out, and were gliding with the tide toward the Narrows.

No sooner had we put off into the stream than the pilots began to look about for a possible prize. Their keen enterprise was illustrated sooner than I expected. Scarcely had we shoved off from the pier when we saw a schooner putting to sea a mile away.

"Johnnie, head her for that schooner," said one of the pilots to the man at the wheel.

"You can't catch her," said another.

"Yes, we can. She's only got her foresail and jib up."

"She'll have her mainsail up in a minute. They're hoisting it now."

"I don't care if they be. We'll catch her, anyway."

And catch her we did, by making all sail with man-of-war speed. Hauling under her stern, we hailed her, and sent a pilot on board to guide her past Sandy Hook. We then took some provisions from Staten Island, and glided through the Narrows. We picked up our pilot at the station-boat. This leads us to notice that one of the pilot fleet is

always stationed off Sandy Hook, to serve as a rendezvous to pilots when they leave vessels, after having piloted them out of New York. The boat anchors between the lightship and Sandy Hook for four days, when another boat takes her place. When the weather is very bad, the station-boat lies off and on. Some times she is forced to make a harbor herself, but it is wild weather indeed when she is obliged to do that. A penalty of one hundred dollars a day is enforced on every boat that delays to appear at the station when its turn has arrived.

The storm signal was flying at Sandy Hook, but it is not for pilots to observe its warning, and we ran out to sea and headed south. At night-fall we double-reefed the mainsail and hove to. We were now in the water where the Caprice, at Christmastime several years ago, encountered the most frightful dangers. Every sea that came on board froze, until the ice on deck was twelve inches thick, and it was feared she might flounder with the weight of the ice. Great blocks of ice grew on the furled jib, and could not be detached without tearing the sail. On New Year's Eve, William Wright, the boat-keeper, entered in the ship's log-book: "January 1st and a happy New Year!" Five days after that, another hand entered on the pages of the same log-book the following terse but tragic record: "Thursday, 6th. Blowing hard from N. E. At 4 A. M. hauled the jib down. Lost a man off the bowsprit. Hove the yawl out and lost two men and the yawl; then hove the other yawl out and lost her. Lay around tacking till daylight, and kept a lookout on the mast-head till 8 A. M. Then started for town at 1 P. M." One of these poor fellows was Wright, the boat-keeper. One month more, and he would have been licensed as a pilot!

Two years before this, the Caprice had been on her beam-ends in a terrific squall, losing both masts and a man who was in the rigging. On still another occasion she was tripped by a huge wave and nearly filled. Momentarily expecting her to go down, the crew took to the boats and were picked up. The schooner survived the gale, however, was towed into port by a passing vessel, and was repurchased at auction by her former owners. On another occasion she was run into by a steamer, cut down to the water's edge and sunk in shoal water, from which she was raised again. She seems to lead a charmed life, but her career well illustrates some of the hazards of piloting - which are so well appreciated by the underwriters that they charge ten per cent. premium for insuring pilot-boats.

Nothing of note occurred during the first night, and after running south for a few hours after daylight, we had just hove to again with the helm lashed, when the lookout at the mast-head cried:

"A pilot-boat on the weather bow, sir!"

Immediately the order rang out, in quick, sharp tones:

"Shake out the reefs in the mainsail and keep her away!"

An exciting race now followed between the two pilot-boats, several miles apart, to reach a large ship standing north. Now rising, now plunging into the gray seas, and staggering under a press of canvas, we neared the prize, only to see it snatched from our grasp by the other boat. No sooner was that fact ascertained than we shortened sail, the lookout was sent aloft to his usual eyrie at the fore cross-trees, and the pilots, without so much as a word of regret, returned to studying the chart, reading a threadbare novel, fingering the wellthumbed cards, or snatching a little sleep in their bunks. This is about the ordinary routine in a pilot-schooner during good weather - intervals of seeming quiet broken by sudden alternations of the utmost excitement, together with a feverish, endless vigilance from mast-head and deck.

Nothing of note occurred on the third day; the recent prevailing winds had kept vessels out at sea. The third night it blew half a gale, and we hove to under close reefs about forty miles southeast of Barnegat light. About ten o'clock, the lights of a steamer heading northward were faintly descried in the mysterious gloom that overhung the sea.

"Give her a torch!" was the order that instantaneously followed the discovery. A tub containing turpentine was brought on deck; a ball of cotton was dipped into this and set on fire. It resembled

the contrivance used to light cigars, except on a larger and ruder scale. The torch was held so as to illuminate the large numbers on the mainsail. Nothing more picturesque can be imagined than this contrast of light and shade—the dark figure in uncouth oil suit standing on the low, reeling deck, fiercely whirling the ball of fire over his head, and the ruddy sail and rigging clear-cut against the impenetrable blackness of night, while the wind whistled through the cordage and the foam seemed to turn into blood as it washed on board.

The steamer, which proved to be a coastwise craft, gradually drew nearer and passed by, heedless of the signal. The excitement was over, and all hands but the watch turned in. At four we signaled a second steamer, and discovered the torch of another schooner in our vicinity.

On the following morning, a wild scene presented itself to view when I went on deck. The gale which had been blowing around us, and of which we had had a taste during the night, had suddenly shifted into the north-west, and was shrieking out of that quarter, with every prospect of increasing. The quick, short, emerald waves, smitten with the gold of the sun bursting over the low shores of New Jersey, were streaked with foam and were rising fast. As it was useless to look for in-bound vessels with this wind, and as its force might increase to a troublesome degree, we decided to beat in under the land, where we should find smooth water. It was a long and arduous pounding with

the seas, but finally we found ourselves close under the sand dunes of Little Egg Harbor. Then we wore ship, and trimmed the sheets to run up the coast to Sandy Hook. Several other pilot-boats were in company, and an impromptu race immediately ensued.

Not to speak too technically, it suffices to say we were under very short sail. The sky was a clear, crisp azure, flecked with swiftly-scudding wind-clouds. The blasts swept off the land with exceeding violence and suddenness, laying the little vessel over on her side and burying her lee rail under a mass of boiling foam, the spray smoking under her bow the while, and blowing off to leeward in sheets. Thus hour after hour went by in this stimulating race. Hour after hour, also, we threaded our way through a fleet of coasting schooners, that were taking advantage of the northerly gale to run down the coast in ballast. Their swelling sails gleamed like flakes of flame over the intense amethystine blue of the sea, that was ridged with long crests of foam. We flew past the lofty light-house of Barnegat and its whitening reefs, past the cedar-tufted banks of Manasquan, the sloping cottages of Elberon, the spacious hotels of Long Branch, the pointed gables of Seabright, and the twin watch-towers of the Highlands, until the sentinel shaft of Sandy Hook loomed grandle in the north, and the glow of the setting sun suffused land and sea and sky with indescribably splendor. Then we headed up into a cove behind the Hook, dropped anchor close by the beach, and went below to a smoking supper. Though the quartering moon shone gloriously that evening, we all snatched a much-needed slumber before venturing out once more to encounter the wild March winds on the gray wastes of the Atlantic.

At dawn we made sail, and stood due east along the shore of Long Island before half a gale of wind. At ten o'clock we discovered a pilot-boat ahead, and crowded on sail to over-haul her. While she was in sight our movements would be necessarily influenced by her own. Finding that we were over-hauling her, she finally put her helm down and headed south.

We kept on to the east, deciding to go as far as Saint George's Bank after steamers. These vessels are the great prizes in the pilot lottery, because their draft averages more than that of sailing ships. To secure an in-bound steamer also insures piloting her out again. Ocean steamers are therefore very desirable game, and great risks are encountered in order to intercept them. The opposite extreme are Norwegian barks, for they are small and generally come to this country in ballast. "To get a Norwegian bark" is therefore considered a good joke on the poor fellow whose luck it is to board one. Steamers which are exclusively freight boats, and are irregular in their sailing days and slow in their movements, are called "tramps," and are also not held in high esteem by the pilots. The cruises

to the eastward are sometimes, although rarely, protracted to twenty or thirty days. But the average luck is good.

The following evening, when we were well eastward of Nantucket light-ship, a steamer was reported heading directly for us. Immediately the cards were flung aside, and in a moment every soul was on deck. The pilot whose turn it was to board the next vessel, after a hurried survey of the steamer, exclaimed:

"Boys, good-by. Finish the game for your-selves!"

He then dashed below, and in all haste put on a "boiled" shirt and a "Sunday-go-to-meeting suit," and packed his valise. It should be remembered that steamers are rather more "swell" than sailing ships, and seem to demand a corresponding difference in apparel. In the meantime, the torch was blazing on deck in the liveliest manner. The needlelike points of light representing the steamer gradually approached, and at last the huge, vague form of the vessel herself could be defined. But she already had a pilot, and paid no attention to us. The game in the cabin was resumed at once, and the "boiled" shirt was once more folded up and laid away carefully in the locker. The precariousness of steamer-catching is well illustrated by this matter of dressing to board them. One of our pilots told us that he had actually shaved and dressed six times in one trip, for a steamer, before he had succeeded in boarding one. There is a tradition of a pilot who dressed seventeen times before success crowned his perseverance.

Morning broke on a savage scene; enormous mounds of water, crested with foam, swelled up against the sky and tossed the little Caprice like an egg-shell. The gale increasing with great fury, we hove to under try-sails—sails scarcely larger than a table-cloth, showing a spread of canvas so moderate that, as they say at sea, we were under "a threereefed mitten with the thumb brailed up." The squalls were tremendous, and were accompanied by blinding sheets of snow, which seemed to sweep from the horizon in a moment and envelop the sea in impenetrable gloom; the decks and rigging were robed in ermine. The gale increased to a hurricane. The little schooner for the most part rode easily, but sometimes a sea, that seemed to go bodily over her, would strike her, and might have sunk her but for the low bulwarks, only a foot high, that allowed the water to run off; sometimes, too, she was carried over so far that there was danger of her rolling completely over. Three times during the day we wore ship in order that we might not be driven out of the track of the steamers; whatever the weather, business was never forgotten. This maneuver was, under the circumstances, one of extreme peril, and required the greatest skill and circumspection.

The sun went down over one of the wildest scenes I have ever witnessed at sea. With some difficulty we managed to get supper, while the deafening roar of the howling winds and the thunder of the surges pounding on deck almost deadened the conversation that went on uninterruptedly below; yarns were told, and intricate problems with cards were discussed by men in oil jackets and sou'-westers, while the cook served out rations of hot coffee. Any moment a terrible catastrophe was likely to overwhelm us, but it was not in the nature of the sailor, after he has taken every precaution, to borrow trouble about possibilities. A vivid flash of lightning at long intervals indicated that the gale was approaching its height, and it was decided to put up stanchions, or posts, in the cabin. These were firmly fixed between the timbers of the deck and the cabin floor, to keep the ballast from shifting in case a sudden lurch should throw the schooner on her beam-ends. If the ballast had shifted, it would have been all over with us in a moment. So violent was the lurching and creaking of the little vessel, all that long, dreary night, that no one slept until toward dawn, when the weather moderated slightly.

But while the wind was less fierce and steady, it blew hard at intervals, and the temperature was so low that the deck was covered with a layer of ice. At noon we succeeded in getting an observation, the pale sun flashing for a moment through the scud and causing the heaving deep to look like molten silver. We were in longitude 66° 30′ and in forty-eight fathoms of water, and were heading south-west, under very short sail, when a fearful squall dark-

ened the horizon and rushed toward us with appalling rapidity. At the same instant the look-out discovered two steamers and a pilot-boat to the eastward. The wildest excitement ensued. Reefs were shaken out, notwithstanding the squall, and the little schooner flew before the blast as if bewitched. The "boiled" shirt was put on again, winds and waves were defied, and every thing was forgotten except the great fact that we must snatch the steamers from the clutches of the rival pilotboat under our lee. When the dense pall of gloom finally passed off to leeward, the southernmost steamer was discovered to have been boarded by our rival. Every effort that skill could devise was then put forth to catch the other steamer. As we lessened the distance, the Caprice was hove to and awaited her approach. Slowing up, the great Cunarder gradually drew toward us, majestically mounting and plunging on the vast surges, while cataracts poured from her hawse-holes as the bow soared skyward. At this exciting moment an enormous whale, little, if any, shorter than our schooner, arose close alongside the Caprice, and, spouting as if to salute her, dived again into the depths.

The yawl, only sixteen feet long, was now launched over our lee side into the frothing waters, and with two seamen and a pilot started for the steamer, then a quarter of a mile distant. I confess it was a thrilling spectacle to see this mere cockle-shell, with her precious freight of three lives, now lifted far above us on a mountainous bil-

·low, and now descending out of sight into the depths of a hollow vale, and hiding there until it seemed as if she would never appear again.

By slow degrees the yawl succeeded in reaching the lee side of the steamer. There again the greatest prudence was required to prevent her from being swamped by the action of the mighty hull, rolling deep in the turbulent sea. At last we saw the pilot, the merest speck, spring on the ladder and creep up the side of the steamer. Then came the yet more difficult task of picking up the yawl. The way it was done was by holding her head to the wind, and allowing her to drift down toward the schooner. By wearing, we kept directly in the track of the yawl; she slipped across our stern, and pulling up under the lee side, was hauled on board.

As can be easily imagined, one of the pilot's most arduous duties is to board a vessel in heavy weather. Each pilot-schooner is provided with two yawls. They are lashed to the deck, bottom upward, and are lifted and launched over the low side of the schooner by means of a light tackle reaching down from the mast-heads, and hooked into the stem and stern. The pilot-yawls differ from other boats in that they are short, broad, and deep, and are thus very buoyant. It is not an uncommon circumstance for men to be lost when boarding vessels. Both yawls of one of our New York pilot-boats were successively capsized the previous winter, when trying to board the *Arizona* in

a gale of wind. Happily the men were picked up by the life-boats of the steamer, after great exertion.

It is with regret I must add that the pilots are sometimes unfairly treated by the captains of the regular transatlantic lines. There is too often a disreputable reason why these steamers give the go-by to pilot-boats that are almost within hail, and pick up another that is beyond. Almost every passenger who has crossed on the regular lines has had experience of the various blackmailing schemes that are sprung on the passengers toward the close of the voyage. Now it is to make up a purse for the captain, who has simply done his duty for a good salary, and no more requires a testimonial than other men who fulfill their duty in their chosen pursuits; or, again, money is solicited for some absurd or imaginary scheme, generally in the name of charity. Only those who have crossed a number of times discover that this is blackmail pure and simple under disguise, and that it is generally engineered by blatant and officious passengers, who have axes of their own to grind. It is blackmail because it is generally brought forward in such a manner that even those who see through the business are forced to contribute, in order to avoid the charge of stinginess. But the worst form of this vile business which assails the luckless passenger on board these steamships is the system of gambling called betting on the number of the pilotboat that shall board the steamer.

I remember a clergyman, inexperienced in matters of real life, who urged me to subscribe to the list of those who were betting on the number of our prospective pilot-boat. "My dear sir," I replied to him, "don't you see that this is nothing more nor less than gambling?" But he would not be convinced, and lost his money. Why he lost, and why others lose on such a wager, is explicable in a few words. The captain and some of his officers often join in the betting-of course through other persons-or they have friends among the bettors whom they are willing to favor. The passengers, on the other hand, are generally so ignorant of nautical matters that the captain can do as he pleases with little risk of detection. For this reason, he can steer out of the way of a pilot-boat that is not the one on which he has staked his money, and go out of his course to take a pilot from the boat on which he has staked his money. It is true that, sometimes, he may not come across that one; but, in most cases, the game is in his hands, while the passenger, on the other hand, little knows that he is so heavily handicapped. We have heard that the master of one of the largest steamers going out of New York had a serious altercation, growing out of a transaction of this sort, with one of his passengers, who was sharper than the majority of his class.

On the eighth day out, we were four hundred and fifty miles east of New York, on the southern edge of Saint George's Bank. At one time, we passed off soundings into blue water for a few hours, a fact proclaimed in sonorous tones by one of the pilots, when he sang out:

"No sound,
No ground,
No bottom to be found
With a long pitch-pine pole, daddy."

The day was gloriously beautiful, the sky cloudless and the swell remaining after the gale was scarcely dimpled by the zephyr-like cat's-paws.

One of the crack boats of the New York pilotfleet loomed above the western horizon, carrying every stitch of canvas. Her shapely sails gleaming in the morning sun, she gradually crept up in our wake, while another pilot-boat was also visible in the eastern board. Circumstances being thus against us, we hauled to the wind on the starboard tack, and headed south until we had run them both out of sight.

"Our policy is to scatter," dryly remarked one of our pilots, a tall, slender Scotchman, of large intelligence and an inexhaustible stock of dry humor.

A standing reward of two dollars for the discovery of a steamer was now offered to the crew, whose vigilance was thus greatly stimulated, although it would have been impossible to sharpen their sense of sight.

"Sail ho!" rang from the mast-head at noon. It proved to be a sailing-ship far to the southward. The wind was so light we could not hope to reach her except by sending out a yawl. But the uncertain nature of the season made this inexpedient. This hazardous method is, however, quite frequently followed by our pilots in calm weather. Its nature is well-indicated by the following adventure, which befell one of the pilots of the *Caprice* some years ago:

It was on a summer day. A dead calm prevailed. They were forty miles south of Long Island. A bark lay eight miles away motionless. The pilotschooner was also unable to move. But it would not do to allow the prize to escape, as she might do if a breeze should strike her sails first. It was decided to row in the yawl to the bark. Eight miles, as every one knows, is quite a distance with oars, or as it is called, with a "white-ash breeze." But the weather promised to continue fine, and the pilot and his two men imprudently started off without water, provisions, compass or sail. Gradually they gained on the chase. But night was creeping on; the cat's-paws stealing along the horizon suggested, too, that they had better hasten their strokes or the bark would get away from them. By great good fortune, as it seemed to them, they finally came almost within hailing distance of her. Five minutes more and they would have boarded her !--when the coming wind filled her flapping sails, and they had the mortification to see her slowly glide away. Their frantic shouts, if heard, were unheeded. They found themselves

alone on the wide ocean, parched with thirst, and weary and hungry. Night was coming on apace. A low, wailing wind was moaning from the south, and as soon as the sun sank out of sight the sea began to rise, and storm-clouds obscured the hazy light of the stars. At that juncture their schooner, which had been following, came not far from them; but, supposing they had been picked up by the bark, did not perceive them, and again their shouts were unheard. Then, indeed, they gave themselves up for lost. The nearest land was forty miles away. As the wind was blowing it would sweep them toward it, while the increasing violence of the gusts foreboded a sea so wild that they must almost inevitably be swamped and drowned in making a landing. Yet their only course was to drive before the wind, and trust to luck to extricate them from their perilous situation.

As night wore on, the storm increased; often the little boat shipped water and seemed on the verge of destruction. Every moment was bringing them nearer to the crisis of their fate. Toward dawn, when the night is darkest, they heard the thunder of surf on the reefs, and faintly discerned, in the gloom, the ghostly pallor of the upward-driven foam. Exhausted as they were, they yet kept their wits about them to seize any possibility of escape that might offer. In one spot there seemed to be a break in the ridge of surf. Skill-fully guiding the boat toward it, in another instant they felt the yawl lifted up on the crest of a vast

breaker rushing with lightning speed toward the land. A deafening roar succeeded, a crash, a whirl and a torrent of foam. In a twinkling the boat was capsized, and the men were borne far up on the beach. One struck a rock and was drowned. The others, as the wave receded, ran up the sand. When the next wave followed, they dug their hands into the beach and held on, lest they should be swept away by the under-tow. But for the fortunate break in the reef through which they had guided the boat, they would all have been lost.

Two days of perfect weather, each closed with a sunset of magical splendor, were followed by a change. The glass began to fall; cloud streamers arched over the zenith from horizon to horizon. A sad wind moaned over the heaving deep, and a mist gradually closed us in. Then came fitful showers, and, between the flaws, the little schooner flapped her slatting sails with foreboding dreariness. Another storm was stealing upon us. During the day-it was Sunday-we saw a number of steamers, bound eastward, which had left New York on the previous day. I should add that for two days we had been heading westward, and were now not far from the Nantucket light-ship. An inbound steamer was also seen from the mast-head, and we flung out all the kites and let our little schooner fly at her wildest rate. Here seemed a fair chance at last, for we were apparently south of the pilotboats we had previously seen, while the whole horizon round revealed not a boat in sight. But, after another mad chase, our hopes were blasted in a moment when the steamer hung out her signal to inform us she was provided with a pilot.

That night there was a snow-ring around the moon, and the glass was still slowly falling. On the following day we had a very exciting chase after a White Star boat. But she, in turn, had been already boarded. At four P.M. the wind, which had been whiffling about in a dubious manner to all points of the compass, settled into a strong, steady breeze from the east, and by nightfall it blew half a gale.

"Call all hands to reef!" rang through the ship, and soon the crew were ranged along the booms, shortening sail. A wild night was before us. For awhile we hove to, in order to be in the track of steamers, reasoning that as the wind was likely to hold awhile it would prevent other pilot boats from getting far east of New York and thus we should have a fair chance of not being interrupted in our chances by interlopers. But, as the gale freshened, it seemed unlikely that we should board any vessel in the weather now threatening, and the helm was put up and we stood west again. We had now been out twelve days.

At sunset the sky was completely obscured by a dense canopy of cloud. Just as the sun rested on the ocean's verge, the clouds lifted enough to allow the sun to burst forth and illumine the horizon with a line of vivid fire, below which the ocean rolled intensely sullen and livid. But who can

describe the awful magnificence which irradiated the entire heavens with a volcanic glow! The sky was like the dome of a vast oven heated to the last degree. At the same moment a shower fell on the sea, and immediately two perfect rainbows spanned the firmament. Then, as if a curtain had been drawn across the scene, night closed in, and the wild winds howled over a little ship tossing alone on a dreary waste of waves.

It blew very hard that night. A dangerous cross-sea set in, and twice the *Caprice* was nearly thrown on her beam-ends with terrific lurches. We kept a bright light at the mast-head and a double look-out, for it was an uncanny time for a collision, and we were directly in the track of ships.

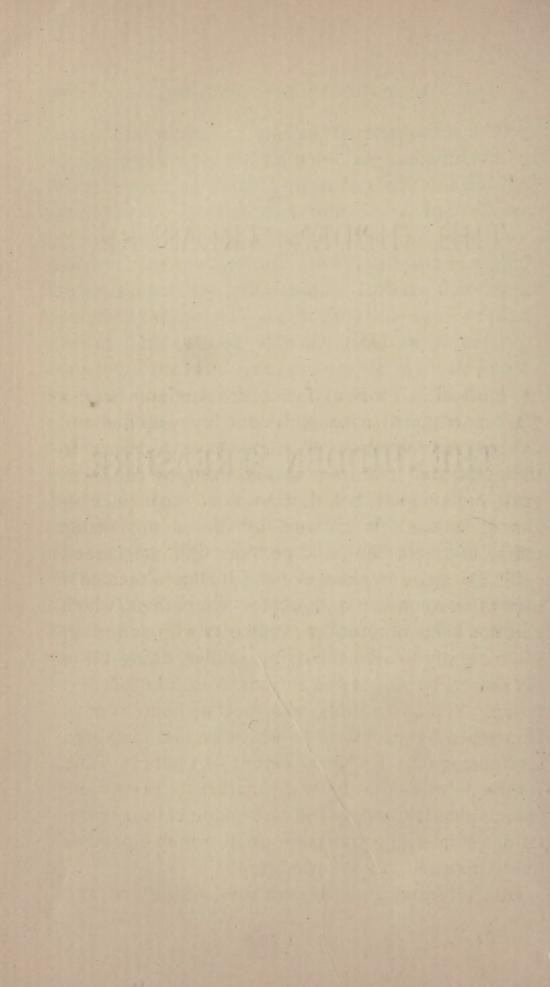
On the following day it moderated, but the wind, which had only "backed in," shifted from north to east after dark. This brought a corresponding change of weather. Rain and fog set in, and a very puffy breeze that settled into a gale before morning. We ran westward all night under short sail, taking casts of the lead at intervals. Soon after ten, the atmosphere being thick, but not so much so as to prevent us from discerning objects some little distance, we discovered a sailing ship ahead, evidently running for New York, and probably in need of a pilot. Edging away toward her, we lit our torch, and had the satisfaction of seeing her send up a couple of rockets in response. At the same time she backed her reefed main-topsail and hove to. Running down on her lee side, we also hove to very near to her, and proceeded to launch the yawl. It was a wild scene as the little boat vanished into the darkness, perhaps never to be seen again. But her crew carried a lantern with them, and after they had left the pilot on board the ship, we were able to shape our movements by this little glimmer bobbing up and down like an *ignis* fatuus in the misty dark.

As the night wore on, the fog grew so dense that we brought up our six-pound brass piece from the fore peak, and fired it at short intervals; this was done, not, as one might suppose, to keep vessels from coming into collision with the schooner, but to inform them there was a pilotboat in the vicinity. But this very fact required redoubled vigilance on our part, in order that we might not be run down. In the middle watch we were startled, just after firing the cannon, by the answering whistle of a steamer hoarsely coming down the wind, and close at hand. The excitement of the moment was intense. Again we fired the cannon. The whistle drew nearer, and all at once the colored lights of a steamer loomed out of the dripping mist, and her huge bow emerged from the gloom, so near that it actually seemed to overhang our deck. Passing close alongside, she slowed up the palpitation of her mighty engine a moment to make sure of our position, and then vaguely glided out of sight.

On the following morning the sun was invisible. The war of the elements was raging with increasing fury. The wind had shifted to south-east. The fog was less dense, and we could see some distance. We were running under a bit of foresail, and hardly needed that. It seemed at times, as if the following seas would founder the schooner as they towered over the low taffrail. Not a sail was in sight, not even a solitary gull; it is a curious fact that, excepting the petrels, sea-birds keep near to the land in bad weather. By means of the patent log towering astern and from casts of the lead, we knew we could not be far from Sandy Hook light-ship.

About ten, the light-ship hove in sight. We rushed by it at the rate of thirteen knots. A very high sea was rolling over the bar, but the depth of water was enough for vessels like the Caprice, and by skillful steering she passed over handsomely. The fierceness of the wind was now terrific, and, dowsing the foresail, we ran up the Lower Bay and flew through the Narrows under bare poles. Thus ended a most delightful and entertaining cruise.

THE HIDDEN TREASURE.



THE HIDDEN TREASURE.

FOUNDED ON FACT.

A T a fort in Florida, during the Seminole war, a man named Richard Blount lay wounded and dying. A keen observer might have discerned in the emaciated features, well-covered by an irongray, untrimmed beard, traces of refinement—almost effaced, it is true, by the unmistakable marks of a turbulent, and perhaps criminal, career.

The surgeon in charge of the stockade seemed a man of warm heart and tender sympathies, which had not been blunted by familiarity with suffering. He carefully tended the dying soldier, doing all in his power, by words and actions, to soothe his last hours. This kindness was not without results. Impressed by attentions to which he had long been unaccustomed, Richard Blount — taciturn and reserved by habit, if not by nature — grew more communicative and, at the last, made certain revelations concerning transactions of which no other living man had any knowledge.

One afternoon, as the sun was setting red and

broad in a burning haze behind the motionless palmettos, and the mocking-bird was pouring forth his wealth of music by the still bayous where the alligator basked unmolested, Richard, who was feeling stronger than usual, after a period of silence and mental struggle with himself, said:

"Doctor, you've been mighty good to me. You are the first person who has spoken a kind word to me for many years. I've led a hard life of it, and very likely don't deserve any better than I've received, yet I can't forget that I was once a better man and used to kind words from those who loved me. And now, although I am both poor and forsaken, yet believe me when I say that it is in my power to make you as wealthy as your wildest fancies could desire. I was born in England; I have not a single relation now living, and to you it can be of no consequence what were the circumstances of my early life. It is enough to say that I was the youngest son of a good family, and was destined to the church, for which I was totally unfitted. I was sent to Oxford, but an insatiable thirst for adventure caused me to run away.

After various fortunes in many parts of the world, in which the cards were generally against me, it was at last my luck to find myself shipped with the crew of a pirate schooner, and a motley crew we were—Spaniards, Frenchmen, Italians, Yankees, Greeks—men of all races. Two or three years I sailed in her, boarding and burning vessels in the Spanish main. At length a rumor reached the nest of

pirates to which I belonged that the English Government was about to take vigorous measures to capture our vessels and destroy our rendezvous. As we had for a long time been very successful, without any serious molestation, there was all the more reason to believe the report. A council of war was called, in which words ran high. But it was decided that, as our rendezvous was well-known and would most likely be attacked first and we should be unable to defend ourselves successfully against such forces as could be sent against us, we ought at once to remove our possessions and conceal them for awhile in some unknown hiding-place. With us to decide was to act, and without further delay the treasure, which was prodigious, being the accumulated spoil of many hard fights and scuttled ships, was stowed in the holds of our vessels. (A little water, surgeon, if you'll be so good.)

"So immense," continued Richard, after a moment, "was the stock of jewelry, dollars and doubloons that no other ballast was needed for the schooners. When every thing was on board we set fire to the cabins on shore, and by the glare of the burning houses dropped down the lagoon and made an offing. We headed for the coast of Florida, and, the moon being at the full, shoved the schooners into an inlet, whose whereabouts was known to one of our captains, a native of Florida, born at Key West, son of a wrecker, I think. It was a very quiet part of the country, without so

many people as there are about it now; and they aren't over-thick even now. We had sent some men ashore in a boat in the morning to find the exact entrance, and after dark they lit a fire on the beach; so we knew just where to put the schooners. At daylight we sailed a long way up the bayou, winding about from bend to bend, with sweeps or tacking along the shore, and blazing the trees as we went along, until we came to a clearing in the woods, where the trees seemed to have been felled by a hurricane. It was gloomy and silent enough -a solitude which we disturbed perhaps for the first time. Here we made the vessels fast to the trees, and all hands went ashore. We made tents of old sails, and in a few hours, to see the smoke streaming up among the trees, and see the boys climbing after birds' nests, or flinging sticks at the alligators, you would have thought it was an old settlement."

After a brief interval of rest, Richard went on: "When the provisions and every thing else had been taken out of the schooners, we hove out the ballast (you remember, it was dollars), and carried it into the middle of the clearing. Each man put his share into an earthen pot; his name, written on a bit of parchment, was placed inside, his initials were scratched on the outside, and it was then sealed up carefully. The pots of gold and silver were then buried in a circle in holes dug tolerably deep in the ground, and every man planted a small tree over his treasure. Our common stock

of treasures we next sealed up in a large jar, and buried this in the centre of the circle, planting a good-sized tree over this also.

"After we had secured our wealth, as considerable time had been lost in doing all this, it was decided that the schooners should go off on another expedition at once, and they put to sea, leaving a few men under my charge to look after the camp, the treasure, and the women and children. Several weeks went by, and no news came from the absent schooners. Our stock of provisions began to run low, and it was impossible to get any thing in that desolate maze of a morass, overgrown with tangled forests and cut up by muddy streams and bayous, especially as we had planted nothing in the clearing, and had not cleared any more of the land, as we expected that of course the schooners would soon return with a fresh stock. We had always been so lucky that not a soul of us dreamed of any trouble. Anyhow, the schooners never came back, nor did I ever afterward get any clue to their fate. They were probably captured and burned, or more likely foundered in a hurricane.

"The rainy season was coming on, and before long several of our number had fallen off with starvation and disease. My comrades and I talked over the situation, and finally concluded to look out for number one, and leave the treasure and women and children to take care of themselves.

"Well, we had a ship's boat with us, and one

day, after putting a few mouldy biscuit in our pockets, we took to the boat and quietly stole away, following the bayou until we came to Then we skirted the coast until we reached a settlement, and after that separated in different directions, for there was no tie of friendship to bind us, and we each had a sort of dread that the others might some way betray him. For years after I wandered about the country-sometimes on the frontier-until I enlisted in the army, not caring much what became of me, but half hoping that perhaps I should be sent to Florida, as turned out to be the case, to fight these Seminoles, and so perhaps catch a chance to look up the treasure we had buried in the forest. I never had had the ready money, nor, I'm not ashamed to say, the courage to go back alone to that spot; but I got this shot in the leg, and here I am, and much good that treasure has done me. But it don't seem quite the thing, you see, that all that money and treasure should be buried there and be of no kind of use to any body, and as you are the first and the last person that's been kind to me these many years, I'll trust to you to see that I have decent burial, and will tell you just how to go to find the treasure. It's all truth I've been telling you, and you needn't be afraid I'm spinning you a forecastle yarn, but just do as I direct you to do, and it'll make you the richest man in the country: and I don't know who deserves it better."

Richard Blount, after this, gave the surgeon very

minute directions as to how to go in quest of the treasure. On the next day the pirate died. As soon after this as the surgeon could get leave of absence, he made arrangements with a friend to go after the supposed mine of wealth concealed in the forests of Southern Florida. He could not quite believe the story, but the circumstances under which it had been disclosed, and the fact that money had often been concealed by the freebooters of the sea, made it sufficiently probable to warrant chartering a small, light-draft schooner and engaging a crew of blacks able to work the vessel and willing to dig in the mud after gold. It was only by a very close and tedious observation of the coast that the mouth of the bayou was found. On entering it from the sea, the line of trees which had been blazed was also discovered with some difficulty and traced from bend to bend in the dusky light of the primeval forest.

Guided by this clue, often but faintly distinguishable, the treasure-seekers, after slowly sailing along the devious mazes of the silent waters of the wilderness until they almost despaired of reaching the end in view, at last burst suddenly upon a sort of clearing in the dense mass of vegetation, overgrown with trees of younger growth, arising from which a circle of larger trees could be distinctly traced, with a central shaft lifting its feathery tuft of foliage far up into the blue sky. Human skeletons, tent stakes and other relics of extinct life were also visible amid the rank grass which overgrew the

soil. Every thing, thus far, had proved exactly as described by Richard Blount, and it was reasonable to suppose that, as the story had been found to tally in the minutest details with facts, it would continue consistent throughout. It was, therefore, with renewed zest and with the burning impatience which tortures the soul when one is confident of the result and sees the desired object almost in his grasp, that the doctor seized a pick-axe, and ordering his men to follow suit, broke ground in the last stage of the quest after a treasure which his fevered fancy pictured as more and more colossal as the rapturous moment approached when it would be opened to view. Such was his impatience that he was the first to make a discovery. The point of the pick, after turning up the soft soil almost noiselessly for some anxious minutes, at last struck something hard with a most decided click. The next stroke the sound was repeated, and at the same time a bit of red pottery was thrown up. The doctor, perspiring with excitement, flung aside the pick-axe and, falling on his knees, began to draw out the earth with his hands, while every one stopped his work and looked on with breathless expectation. It took but a moment to bring to light an earthen jar, but on trying to raise it they found it was cracked in several pieces, and that the bottom had fallen out. What was more important, the jar was empty! Here was a disappointment, to be sure; but they would not yet give up heart; there were still many jars, and perhaps this one was only a "blind." But jar after jar was turned up and all were found more or less broken, and not a dollar did one of them contain. Last of all, the searchers cut down the central tree and unearthed the large jar over which it stood. This also, crowning disappointment of all, was in the same condition and contained only earth-worms. Baffled, but not quite disheartened, the treasure-seekers, as a last resort, dug several feet below where the central jar had been. They did not find the treasure they sought, but they ascertained where it had gone.

They came to water, and thus discovered the solution of the mystery, and what had robbed them of the gold. They stood on a mere alluvial crust of oozy soil, under which the water percolated at some depth below. The moisture of the earth had softened the jars, and the weight of the treasure had carried away the bottoms and caused it gradually to sink lower and lower, as in a quicksand, until it had dropped into the water and, of course, out of sight.

There was nothing more to be done but to abandon further operations for the time, as such a result had not been foreseen and the means for raising the money were not at hand. But the following year the doctor returned to the bayou with a pumping machine and ample apparatus for his purpose, and after much labor was partially rewarded for his trouble.

Doubloons and guineas, vases and caskets of precious metals elaborately chased, the handiwork

of skilled artisans of various races and ages, and gems of price, which had long lain concealed in the slime of the forest, again flashed in the sunbeams. But all the lost treasure was not regained; some of it eluded the closest scrutiny of avarice or enterprise, and still lies buried forever under the waters and the sod of Florida.

OUT OF THE DEPTHS.

OUT OF THE DEPTHS.

CAPTAIN ABIJAH BAKER had been to sea ever since his fourteenth year. He was born on the Cape; there he found his wife; there his children were born; there stood the house he had built, to which he always returned for a few days at the end of each voyage; and thither he had come at last after forty years of wandering on the ocean to pass the remainder of his days, on a moderate but snug competence wrenched from the mad sea-waves, until he should once more launch his bark on the voyage from which no traveler returns. His boy had also taken early to the water, and was now skipper of the fishing schooner Gentle Annie. He was engaged to Lucy May, the lady who taught the district school, and after one or two more successful trips to the banks the wedding was to come off.

Captain Baker was a noble specimen of the mariners they used to turn out on Cape Cod. Nearly six feet tall, broad-chested and broad-shouldered, he still walked erect as in his youth; and the keen, honest, fearless look of his blue eyes from under their roofing of shaggy gray eyebrows

was as undimmed as when he first trod the quarter-deck. But if sometimes their glance was stern and uncompromising, there lurked in them also unfathomed possibilities of good-natured mirth, and not rarely an expression which showed that under a bluff exterior he carried a warm, true heart.

Mrs. Baker still survived, after twenty-six years of wedded life, to have her "old man" with her, and with him to share the remaining years of life. When they were first married she made several voyages with her husband, but the invariable seasickness which persecuted her on shipboard, and the growing demands of her children, obliged her to remain at home to worry for him on stormy nights, and realize the truth of the French proverb, "Femme de marin, femme de chagrin."

Her daughter Mary, now a girl of twenty, had tended to assuage her solitude while husband and son were battling with winds and waves thousands of miles away. Mrs. Baker was one of those women of tact and character who, while not at all lacking in independence and spirit, had the penetration to perceive that in the family as on the quarter-deck, there can be only one captain, even when the mate knows more than the captain about navigation, and that even for her own comfort merely, and to retain her influence over him, it was better to yield to and co-operate in the lifeplans of her husband than to thwart them by direct opposition. A thoroughly practical New England woman, generally undemonstrative but

faithful in her affections, portly and warm-hearted, Mrs. Baker accepted with serene content the prospect of having Abijah with her as never before during all their married years, with their son and daughter-in-law settled near them, and possibly divers grandchildren toddling in the spring sunshine before the grandparental door.

But fate seemed to have otherwise determined, or at least awhile longer deferred good Mrs. Baker's entrance into possession of these castles in Spain. It is a hard thing for a man still in active possession of his powers suddenly to abdicate the throne and retire into peaceful inaction. When he is oppressed by the storms of life he looks longingly forward to a tranquil rest under his own vine and fig-tree. But the strongest muscles condemned to inaction become flabby and weak, the keenest blade hanging unused on a wall is eaten with rust, and the brain, ceasing its wonted habits of action, softens and decays, and senility comes on apace. Many men, instinctively conscious of this tendency after they have tried rest for a time, chafe once more for a field whereon to exercise their powers, and spring back to the arena to begin life anew, but so heavily handicapped by age or the more recent habits of lethargy, that they learn when it is too late the mistake they made in so soon quitting their life-pursuits.

It was not long before Captain Baker began to realize the truth of these observations. To spend the remainder of his days hoeing potato hills and turning his melons and squashes to the sun on the sere soil of the cape, or oscillating between his house and the village store, with an occasional trip to Boston, was rather too placid and monotonous a change for a man who had listened all his days to the creaking of tackle-blocks and the thunderous, frantic flapping of topsails in Atlantic squalls-a man, too, in whose veins still leaped a manly vigor, in whose heart still throbbed an honest ambition. The growing uneasiness of her husband, the restlessness and annoyed discontent so unusual in his frank and generous nature, were not unperceived by Mrs. Baker; she foresaw the inevitable result, but kept her own counsels. But when he returned one day from Boston with a sober yet brisk and determined air, she was prepared to hear him say: "Well mother,"-he always called her mother-"I don't s'pose you'll like it very well, and it comes kind of hard for me to tell ye, but I'm going on a v'y'ge to Smyrna; I sail next week."

"I mistrusted somethin' of the sort when you went to Boston; I knew 'twan't for nothin' you were going up there so often. But what on airth possesses ye to go to sea again, Abijah? Here you are, every thing just as coozy as can be, and I ain't seen much of ye since we stood up afore the minister twenty-seven years ago come next October; and here's Johnnie going to be married maybe next Thanksgiving."

"Well, you see it's just here: I hate to go and leave ye, but then what's a man to do here if he

hain't got no trade ashore to keep him busy? And I feel just as spry as when I first took command of the Wild Rover. I don't mean to go to sea again for good, but let me go just one more v'y'ge, and I'll get over this hankering for it. Anyway, I didn't really mean to go again, but when I went into Clark & Allen's office t'other day they said to me: 'Captain, you are just the man for us. Captain Tressle has just fallen and broken a leg and two ribs; 'tain't no kind of use for him to try to go this v'y'ge, and the Jennie Lane will be ready to go to sea next week. You are part owner, and now you've had a long vacation on shore, here's a good chance for you to get on your sea-legs again.' It did seem kind o' providential like, and, after turning the matter over, I told them that I would go."

"I am afraid you are making a mistake, Abijah. I won't say nothin' for myself," and the poor woman put the corner of her apron to her eye—it was only a momentary weakness—"but I mistrust things won't go all right."

"So you've said before when I've been a-goin' to sail, but nothin' ever came of it. So, cheer up, mother; and if you've got a cup of that last tea I brought, 'twon't come amiss."

"The Lord knows! We don't always know our own minds, or what's good for us. But if you must go, Abijah—and now you've given your word, it can't be helped—I must look over your things, and if there's any thing you need, I'll send for

Mehitabel Whelden to come right over and help me do the sewing."

The captain, relieved that he had got over the difficulty of breaking unpleasant news to his wife so easily, and that she took it so kindly, had to give her a kiss, while she, between smiles and tears, said: "Oh, yes; that's just the way; you are always ready enough with your kisses if I'll only let you have your own way," but she was proud enough of her old sea-captain for all that.

And so the matter was settled. In a fortnight Captain Baker was once more crossing the Atlantic, the topsails of the Jennie Lane swelling with the exuberant force of a westerly gale which rapidly bore him away from his quiet home and disconsolate wife. In ten days they sighted Fayal, and, after a splendid run of thirty-six days, the Jennie Lane had passed from the New World into the Old World, from the nineteenth century into the past ages, from the trinitarian orthodoxy of the bell of Park Street Church to the theistic chant of the muezzin of Islam, and unloaded the rum of Medford and the missionaries of Pemberton Square upon the wharves of Smyrna.

In another month she was ready to turn her bowsprit again toward Long Wharf and the land of the setting sun. Her hold was packed with bales of wool and rags. The hatches were battened down, the topsails were hoisted and sheeted home and a back to the mast; the crew, with a long song, had got the anchor a-trip; the passengers, a

missionary with his wife and four children, were busy arranging their quarters in the small cabin; the Greek pilot was on board; and the setting sun was tinging the mountain crags of Anatolia with roseate hues, and gilding the red roofs, crescent-tipped minarets, and crumbling Roman ramparts of Smyrna, when Captain Baker and the consignee came off to the ship, having paid their last visit to the consul and the health officers of the port.

"Mr. Partridge, you can make sail on her and cast off; let me know when all is ready," said the captain to the mate as he went below for the last consultation with the consignee. As the breeze was light, the top-gallant sails and royals were sheeted home, and when she was adrift Mr. Partridge called the captain.

When the bark fell off gracefully on the starboard tack, the two brass pieces were fired; Captain Baker was a strict disciplinarian; he kept his vessel trim as a yacht, and in entering or leaving port aimed at a man-of-war style as far as possible in a merchant ship.

"Good-by, Captain Baker," said the consignee, as he stepped into his boat; "a pleasant and quick voyage to you! When shall we look for you again?"

"Oh, this is my last v'y'ge! I ain't goin' to sea any more; I promised Mrs. Baker to stay at home after this v'y'ge."

"So you said the last time you were here. We'll see you back again before long."

"No, I say good-by to Smyrna now, for good and all. But I expect to see you in Boston some time."

Every thing looked propitious for a prosperous voyage home; but, being the summer season, the occasional gales and squalls they encountered were alternated by light, baffling winds and long calms, always more or less irritating to the ruling mind which paces the quarter-deck, but affording a good opportunity for scraping and slushing the masts, setting up and tarring the rigging, and painting the ship from truck to water-line. In this way the Jennie Lane was made to look as if she were intended to be put under a glass case, while Captain Baker talked theology with the missionary, and kept an eye on the barometer or the offing for a breeze. On the 4th of July the bark was suddenly surrounded by field-ice and bergs of enormous size; the air from almost tropical heat, became wintry cold, and the gleam of the sun and the moon on the glittering masses, while it displayed their splendor, also revealed the extent of the perils by which they were surrounded. Most fortunately, the weather continued clear, and having a leading wind, they escaped the ice unharmed.

And now, ho for the Grand Banks and for home! Captain Baker had been impatient all the voyage to reach the Banks, hoping to see his son there; the *Gentle Annie* was generally on fishing-grounds about that time, and the captain was especially anxious for clear weather, so

that he might not only see his boy's schooner, but might also thus avoid the danger of running her down in a fog, a peril of the Banks which neither fog-horns nor whistles nor the utmost vigilance can altogether dispel. It was a great relief, therefore, when on a fine, clear morning, with a good offing, Captain Baker saw a fleet of fishermen at anchor ahead or dodging about after fish. With eagerness he scanned them all, recognizing one and another in turn; but it was with ill-concealed disappointment that he failed to see the Gentle Annie anywhere in sight. Hailing one of the schooners which was from the cape, he inquired for her whereabout, and was informed that she had started for home some days previous, having got a full fare of fish.

"Well," said Captain Baker, "I'm right glad to hear John's got a full fare so early in the season; he'll be coming out again afore long, and, if he gets another good catch, then there'll be a wedding, and you can count me in as one of those present. I don't know any body who deserves a good wife more than our John, and that's just what he's a-going to have."

After the Grand Banks are passed, going to the westward, it always seems as if one could almost see the ridge-pole of the old homestead and the well-sweep rising by it, especially if a driving north-easter makes the lads in the forecastle sing, "The girls at home have got hold of the tow-rope," and that was just the wind which now swept the

Jennie Lane along like a mad race-horse, scudding over the foaming crests on a bee-line for Boston Light. Captain Baker always carried sail hard, and he could do this safely because he never lost his head, and could take in canvas in a squall with perfect coolness. The bark now staggered under a press of sail rarely seen in such weather except on Yankee ships, and when commanded by such men as Captain Abijah Baker. When the canvas blew away, all hands were sent aloft to bend and set on another sail on the yard.

"By George! but if this isn't glorious!" exclaimed the hale old sea-dog. "If Johnnie don't look out, we'll get into Boston Bay before he sights the Highland Light!"

But the nearer they came to the coast the thicker the weather became—not exactly a fog, but a dripping Scotch mist and rain that effectually shut every thing out of sight a ship's length ahead, requiring a constant, careful look-out, with frequent blowing of the fog-horn. But they kept driving the bark on her course, although she rolled heavily in the immense seas heaving under the quarter; and the rattling and crashing of tin pans and crockery below, and the faint gleams of lightning in the south-west, indicated the growing severity of the storm. But Captain Baker, judging from the barometer and certain signs significant to the experienced eye, inferred that there would be a shift in the wind ahead before morning, and was

anxious to make all the longitude possible before the change.

It had just struck eight bells. There is something peculiarly solemn in the toll of a ship's bell on a dark, stormy night, when the wind is chanting a shrill, weird wail in the rigging, and the melancholy swash of the waves seems to shut out the lonely vessel and the isolated beings on her deck from all the rest of creation.

"Mr. Partridge," said the captain to the mate, whose watch it was on deck—"Mr. Partridge, you'll keep a good look-out, and if there's any sign of a change of weather, give me a call. If the wind hasn't shifted when they change the watch, we'll heave to, as we don't want to run in too close while it continues thick like this."

Captain Baker then turned to go below, and had just reached the companion-way when the look-out on the forecastle deck sang out:

"Vessel dead ahead, close aboard of us!"

"Port! hard a-port!" rang out the thundertones of Captain Baker's voice, and like an echo of
his own voice came back the cry from the unknown
ship, "Port!" and the bark, suddenly arrested in
her course, swung to windward, reeling over on her
side, and her foretopmast snapping off even with
the cap as she broached to. But it was too late.
At the same instant she rose on the sea and rushed
down with a tremendous crash into the vessel
ahead; and as she swung back, stunned by the shock,
and then surged on again, a schooner loomed up

out of the gloom, ranged alongside, and went down with a last smothered cry of agony rising from her deck blending with the howling of the gale. Hencoops, spars, and life-preservers were thrown over from the bark, if haply some poor soul might lay hold of one; but, obviously, the first duty was to see whether the Jennie Lane had suffered such damage as would place her own existence in danger. The pumps were sounded, and a slight increase of water was found, indicating that she had started some of her forward timbers; but, most fortunately, the water did not rush in so fast as to be an object of immediate concern, proving under control of the pumps. But some of her upper works had been carried away, including her jib-boom and foretopmast and main top-gallant mast, so that she seemed to be in quite a forlorn condition. While the investigation as to the damage done was going on forward, a voice was heard in the fore-chains, and it was found that one of the schooner's crew was clinging there, who had managed to get a hold, but, spraining his ankle, was unable to climb further. He was at once rescued and brought aft in a halfdrowned condition.

"What schooner was that?" inquired Captain Baker.

[&]quot;She was the Gentle Annie of-"

[&]quot;What! the Gentle Annie, John Baker skipper?" exclaimed the captain, shaking like a leaf.

[&]quot;Yes, sir."

[&]quot; My God! O my God!" groaned the poor cap-

tain, leaning against the rail for support in the extremity of his emotion. "Oh my boy! my poor boy!"

When the first paroxysm of sudden grief and despair was over, Captain Baker, like all men of action of his stamp, nerved himself to his duty, and, controlling the outward expression of his feelings, went about the ship to see that all was made snug and secure. To put a boat over in that sea and mist, in search of the schooner's crew, was a hopeless task, and would only needlessly risk other lives. He therefore gave orders to keep the bark as near as possible to the position of the catastrophe until daybreak; and, having assured himself that his vessel was in no present danger from the collision, he went below to pass the saddest night of his life.

A long and earnest search on the following morning brought no relief to the hopeless father. The wind had shifted and "scoffed" the fog away, but nothing was to be seen except here and there a distant sail. About mid-day a pilot was taken on board, and in twenty-four hours, with the aid of a tug, the *Jennie Lane* was alongside of Long Wharf.

The news of the collision being in the nature of bad tidings, and involving the fate of three men at Captain Baker's home—the rest of the lost men were from other places—it reached the place without delay one evening after candle-light. As usual, when the mail arrived, there was a knot of loafers collected inside of the store, with such more

reputable and industrious villagers as expected letters. The postmaster's paper was seized by one of those most greedy for news, and if any item of interest occurred he read it aloud. The audience being largely composed of seafaring people, the column of ship-news was naturally the first to receive attention. On this occasion Jerry Fuller, a lank-limbed specimen of the Cape Cod race, had the newspaper, and with his slouched hat on the back of his head and his feet on the rung of the old chair, which was tilted against a barrel of potatoes, was leisurely going over the items, when, with a start, he vehemently exclaimed:

"My good gracious, if this don't beat all!"

"Why, what is it now, Jerry?"

"Just look a-here—just listen to this, boys! The Gentle Annie's been run down and sunk in a gale of wind by the bark Jennie Lane."

Every one in the store immediately crowded around Jerry while he read aloud the account of the calamity, which, although briefly and simply told, came home to them all with terrible emphasis.

"There was the Widow Fisher's boy and Tommy Sloane and Johnnie Baker, all from this place, all as likely fellows as ever grasped a marlin-spike, and they've all gone to 'Davy Jones'," said Bill Tucker, heaving a sigh and moistening the fireless stove with tobacco-juice.

"I'm thinkin' it's mighty hard lines for the old man," said Joey Greene.

"A drowning of his own boy! It's blamed hard luck now, I tell you," muttered Jerry.

"Derned if I don't think so," echoed Bill

Tucker.

"Well, it's the Lord's doing," solemnly ejaculated Mr. Plympton, the minister, who with sallow, hatchet face, was standing on the edge of the crowd.

"Maybe 'tis, maybe 'taint," growled one who never went to meeting, and was reputed to believe in neither God nor devil.

"Anyway, it's mighty rough on him, you bet," answered old Captain Si Jones.

But the minister, realizing the fearful import of the fatal tidings when it should reach Mrs. Baker, and touched with anxious sympathy, hastened home to inform his wife, who immediately put on her hood and stepped over to the captain's house to break the news to the afflicted wife and mother.

It is not for us to intrude on that stricken household, or to reveal the sorrowful meeting of the parents of the lost Johnnie, or the despair of his betrothed, Lucy May, to whom it now seemed as if the light had gone out of the world.

But if it was hard for Captain Baker to remain at home before this tragedy had overtaken him, it was still harder now. Every thing reminded him of his lost son, and of the blasted hopes which had centred around him. Although ten years seemed to have been added to his age, and a slight uncertainty seemed to some to have altered the firm tread

of his massive frame, yet to the outside world he preserved a steady, almost cheerful demeanor. But the sea drew him again with a strange, irresistible influence, with the glamour of a witch.

"I can't live this way, mother; I must take another v'y'ge, even ef I don't never come back here again."

Not only did Mrs. Baker not hinder his going, but she decided to go with him; whatever be the fate before him, she would share it, and, great as was her sorrow, she knew that his was in some sort increased by the shadow of self-accusing remorse, a self-blame not wholly unnatural for a calamity which it was out of his power to prevent. Leaving their daughter and Lucy May in their house with a maiden aunt who had been invited to make her home there during their absence, the faithful pair, at an age when most people are laying aside the burdens of life, sailed out once more on the rough, treacherous ocean which so emphatically symbolizes the troublous life of man. The gossips of the cape, with pursed-up lips, and a knowing shake of the head acknowledged to a presentiment that he would never return, that this was destined too truly to be his last voyage, notwithstanding that he asserted with a grim smile that he was heading for the Cape of Good Hope this time, which was true enough; for, as if to renew the days of early manhood, Captain Baker now took command of the Dhulep Singh for Calcutta, the port to which his first voyages were made.

The voyage out was unattended by any unusual incidents. The ship reached the Hooghly in safety, and, having discharged her cargo and reloaded, started for home. If the outward voyage had often seemed monotonously melancholy to the old sailor and his wife, oppressed by the weight of their loss and the blasting of their hopes, the homeward voyage was more hopeless, for they felt, if they did not shape their thoughts in words, that the blank dreariness of their home on their return to it would tend to reopen the heart-wounds but partially healed.

Gradually the Dhulep Singh plowed her way across the Indian Ocean toward the Cape of Good Hope. She had escaped the violent gales which accompany the change of the monsoons, and was running before a very fresh but favorable and seemingly steady breeze on the quarter, and it was hoped that she would weather the cape and take the south-east trades without meeting any heavy gales. But it was otherwise ordained. Having taken his afternoon nap, Captain Baker got up and took a look at the barometer. The result was so unsatisfactory that he rubbed his eyes and gave another glance at the mercury, which only confirmed his first observation. He went on deck without delay. A great change was impending. A terrific gloom was overspreading the heavens, reaching up from the horizon across the zenith in ragged, livid streaks, like the arms of demons stretching out to clutch their victims. The sea under this pall rolled black and ominous, boding no good, while ever and

anon the dark curtain of mist which was rapidly approaching from the south-west was rent by appalling flashes of lightning, now white bolts riving the skies in twain, now in vivid sheets which circled the whole offing and rimmed the sea with a ring of fire. The distant but ceaseless roll of thunder, every moment growing louder, was of a character to impress the stoutest heart with awe and apprehension.

The officer of the deck had already begun to take precautions to meet the storm, and most of the watch were aloft furling the light sails; but Captain Baker, who was better acquainted with the weather of those seas than the mate, saw that not a moment was to be lost while the ship still had whole topsails and courses set.

"Come down from there!" he roared to the men aloft; "don't wait to furl the top-gallant sails!" then, turning to the mate, he bade him call the watch below. The words were scarcely out of his mouth when the ship was taken aback by a fierce squall right in her teeth. The tremendous pressure on the topsails made it useless to let go the halyards or start the sheets, and, driven stern foremost, the ship began to bury her taffrail under the combers; the water boiled over like a sluice, rushing forward into the cabin and the waist; she was apparently entirely beyond human control, and in another minute would have gone down, as lightning, thunder, darkness, wind and rain burst with a sublime, confused and irresistible fury

over the devoted ship. But at that supreme moment the crew, by almost superhuman efforts, succeeded in lowering the spanker and bracing the foreyard. The noble ship, writhing and wrestling for life, fell off in the trough of the sea, lying over almost on her beam-ends, while the sails were blown out of the bolt-ropes and flew off to leeward like scraps of vapor. For the time she was saved, but how long could she live in that position was the question, especially if the storm settled down into a continuous hurricane. By skillful management they finally got the ship paying off before the wind, scudding with a rag of canvas in the fore-rigging. By the next morning the Dhulep Singh had run out of the vortex of the cyclone, and they were able to heave to, although a sea absolutely mountainous rolled up from the south pole in a manner that sometimes threatened to ingulf the ship.

The sun set that day in a clear offing, festooned with the pageantry of crimson and golden clouds, and the wind having shifted and greatly moderated, they were able to make sail. Two days after the Cape of Good Hope was sighted, like a gray cloud against the pale green of the horizon sky. The weather was fine, the ship jogging along under royals, and the crew engaged in repairing such damages as had occurred to the rigging during the late storm. Two of them squatted on the deck in the gangway, were mending a topsail; Mrs. Baker was seated by the companion-way sewing and chat-

ting with the captain, who, spy-glass in hand, scanned the offing from time to time. Neptune, their noble Newfoundland dog, was standing on the taffrail snuffing the land, and gazing at the sea with an expression truly human. It sometimes does seem as if, with their other gifts, some dogs may be permitted to claim a certain dim, far-off sense of the poetic feeling. It was, in a word, one of those average days between the repose of a calm and the excitement of a storm, such as come in the life of a ship as in the life of man.

"To-day is our John's birthday. Had you thought of it, Abijah? He would have been twenty-eight years old," said Mrs. Baker.

"Yes, mother, it was the first thing I thought of when I woke up."

"Well, one thing is sure—he's where he'll have no more hurricanes to fight." Although she had been heroically calm throughout the late storm, it had naturally made a lasting impression upon her, and, being the least bit superstitious, like most people, or call it belief in Providence if you prefer, she sincerely believed that it was for some purpose she had been "spared," when others were overwhelmed by the winds and waves, never more to see their homes.

"I suppose that's so; we don't know much about it; still, I'd be glad to see him back again, and I don't believe but what, to please his old parents and his poor girl mourning for him on the cape, he'd be willing to come back for a while."

"You know the Bible says, 'He shall come back no more to me, but I shall go to him,'" repeated the good lady, in a low tone.

"I wish I had your faith, mother, not because believing a thing makes a thing any more true, but then one feels better and takes life easier."

Thus the pair gossiped to themselves in the commonplaces characteristic of those whose life-work is action rather than speech. After awhile one of the men aloft reported a sail in sight.

"Where away?"

"On the lee beam; looks like a wreck, sir."

Every body immediately sprang to his feet and scanned the offing, but as the strange sail was not visible from the deck, Captain Baker went aloft with his glass, and discovered it to be a ship apparently in a sinking condition, her fore and main-masts gone by the board, and a flag of distress in the mizzen-rigging; she had evidently been dismantled by the late hurricane.

"Square the main-yard!" was the order that now rang through the ship, and she was then kept away for the wreck, which very soon became visible from the deck. As they drew nearer they could see that she was settling fast, and that the crew (her boats having been carried away) were rapidly constructing a raft alongside. The *Dhulep Singh* was hove-to a short distance from the wreck, which proved to be the *Rothsay*, tea-clipper of London, and a boat was lowered and sent off to her. The *Rothsay* was almost down to her scuppers, wallow-

ing helplessly in the sea, and her end was fast approaching. Help had come to her crew just as she was about to go out from under them and leave them adrift on the waste of ocean; nor was it safe for the boat to linger alongside, lest it should be sucked down by the whirling vortex caused by the death-throes of the foundering ship, liable to occur at any moment. A number of the Rothsay's crew had been washed off by the hurricane, and one who had been maimed by falling spars, was already lying on the raft, and was gently transferred to the boat, which then shoved off. When it was midway between the two ships the Rothsay, lurching convulsively, buried her bow in a sea, and the waves closed over her as she went down, locked in their embrace till the sea give up her dead. There is no more solemn or impressive sight in this world than the sinking of a ship at sea. When a man dies, the body continues for awhile to give the semblance of reality, and only by degrees wastes away into nothingness. When a house burns down, it is only gradually, and the ashes remain. When an earthquake fells a city, the fragments are still there. But when one moment we see the strong and mighty fabric of a ship actually before us, and the next can discern absolutely not a vestige or sign or semblance or shadow of it existing, we come very near to forming a conception of what annihilation is, if there be any such thing.

The Rothsay having disappeared, the attention of all on board the Dhulep Singh was directed to the

returning boat, and the haggard faces of those who had been so opportunely rescued from a watery grave were eagerly scanned. But when it arrived alongside, and the features of the wounded man became distinctly visible, Mrs. Baker, shuddering as if with cold, pale as death, and with tongue almost paralyzed with overpowering emotion, clutched her husband's arm: "Abijah, don't he look like our Johnnie?"

"Elizabeth, what—you don't mean to say—My God, it can't be !—and yet—if only the dead could come to life, I should say it was our John!"

Thus gasping and staggering, rather than walking, Captain Baker took two or three steps forward, and gazed earnestly into the eyes of the maimed seaman, who at the instant looked up. As he caught the gaze of the captain, a change came over his sunken features; reaching forward his arms and exclaiming, "Father!" he fell back apparently dead; it was this circumstance which aided to prevent the parents from yielding to the emotions caused by the violence of the shock received from this most extraordinary event. Descending into the boat, the captain found that his son was only in a state of syncope, resulting from excitement and physical exhaustion. With the greatest tenderness and sympathy, in which every one of the crew joined-and it may be said to their credit that more than one of them drew his rough fist across his eyes-John Baker was hoisted out of the boat and carried into the cabin, where the usual remedies applied in such cases soon restored him to consciousness.

John Baker's story is soon told; hair-breadth as was his escape, it is at any rate no more remarkable than the adventures which are encountered by most seafaring men some time in the course of their adventurous lives. On the night of the collision he was on deck; the schooner was lying-to, and, as she was directly in the track of inward-bound vessels, anxiety was felt, and a sharp lookout maintained. He discovered the bark at the same instant that the schooner was perceived. Conscious at a glance that a collision was unavoidable, he at once took thought for his personal safety. As is common on our fishing schooners, there was a nest of dories amidships. He made a dive at this and lifted the upper one out of its bed just as the two vessels came together, and held fast to it by the painter. By great good luck it floated when the schooner went down, and he contrived to get into it. It glided over the seas before the wind, its very lightness giving it buoyancy, and helping to keep it clear of the combers. But it was only by the greatest management-may not one also add, by the aid of Providence!—that dory and crew of one man lived till morning. He was then sighted by a ship outward bound; she altered her course, and flung a rope to him as she swept by; he caught it and was saved. The vessel was bound to China, and the captain was loath to put back to land him,

but promised to transfer him to some homewardbound vessel if convenient. No such opportunity seemed to occur; either the sea was too high to launch a boat when they met such a ship, or they did not care to lose a fair wind; something always prevented. In the meantime John was given a berth in the forecastle, and worked his passage. At Shanghai he secured the place of second mate in the Rothsay, and started for home via England. The Rothsay was overtaken by the hurricane described above, and hove on her beam-ends: her captain was washed overboard with several of the crew; it was then found necessary to cut away the masts to right her, and John had his leg broken in two places by a falling spar. After the ship righted it was discovered that she had started a butt. caused perhaps by the pounding of a mast-head before the wrecked stuff was cleared away, and the water gained rapidly on the pumps.

John had suffered greatly from the severe accident which had befallen him, which had been aggravated by exposure and lack of surgical aid. And although the tender care of his mother and the glad face of his father did much to relieve his pain, it was decided to put into Cape Town to procure the medical advice he so much needed. At the Cape of Good Hope they remained several days, and then under propitious auspices hoisted the topsails once more for home. Past St. Helena's rocky isle, across the line, and the Gulf Stream, the *Dhulep Singh* sped as if impelled by a conscious-

ness of the glad tidings she bore to the forlorn heart on the cape, gazing with despair along the far-off verge of ocean for the sail of one who would never return to cheer her life again.

It was a glad moment for all an board when the bare, yellow sand-hills of Cape Cod and the Highland Lighthouse hove in sight. "My country!" exclaimed Captain Baker with exultation, as he proudly gazed on the rising shores of his native land, while Neptune, wagging his bushy tail with becoming dignity, evidently regarded the scene with similar sentiments, and hailed every passing vessel with a sonorous, good-natured bark.

A question which often arises in life is whether the happiness that succeeds adversity and sorrow is dearly purchased at that rate. Probably, if we had the choosing of our destiny, we should shrink from such a valuation of good fortune. But Providence, which lays down the laws for man, has otherwise ordained, and decrees that as in art so in life the strongest effects of light shall be gained by a deep, contrasting shade; that repose shall come as a relief from toil and pain; that rapture shall be rapture because it is the revulsion from overpowering anguish of soul. Hard is the law, terrible the price we pay for what happiness we have in life, but there is only one philosophy that is of any practical value here below, and that is to accept the inevitable.

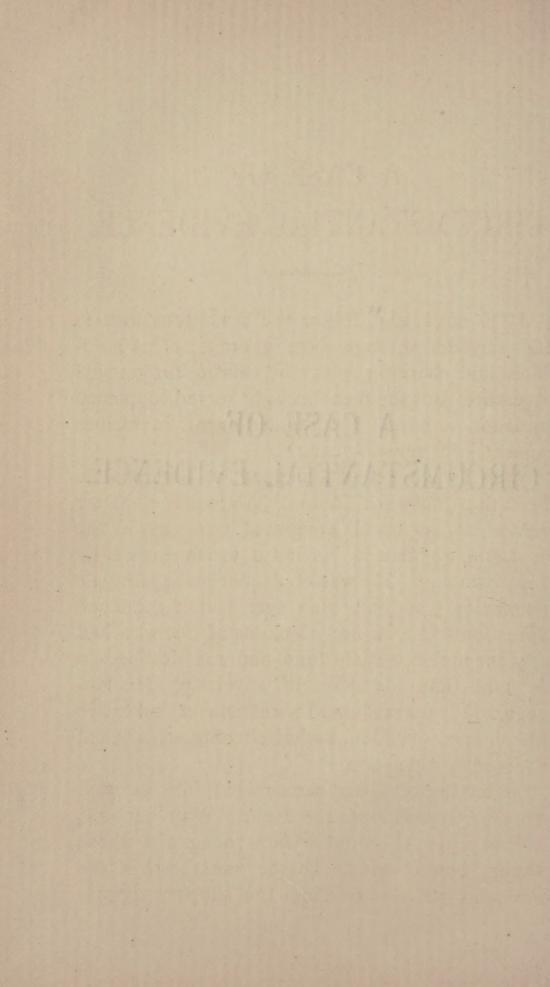
This train of thought received a practical exemplification when Captain Baker, with his good wife and son, arrived at home on a certain evening some years ago. The wedding which followed before many weeks needs little comment; it was one of unusual solemnity and happiness; and the chubby, blue-eyed, dimple-cheeked little girl, who appeared in due season thereafter, was regarded with peculiar feelings. It was a warm welcome indeed which she received from Grandmother Baker, who at one time had given up all prospect of ever seeing this little granddaughter.

"Ah, little one, you little know how near you came to never having a father!" said Captain Baker, as for the first time he gazed entranced on his first grandchild.

"One may truly say that she was brought to us out of the depths," said Mr. Plympton, the minister; "out of the depths of the sea, out of the depths of despair, she comes to us, bearing consolation and the smile of God reflected on her brow."

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A CASE OF CIRCUMSTANTIAL EVIDENCE.



A CASE OF CIRCUMSTANTIAL EVIDENCE.

Like most who follow the sea, I took to it in boyhood through sheer ignorance of its hardships, and burning with enthusiasm for untried adventure. But the first fortnight served to quench my ardor, although I continued to sail in various capacities for several years.

When I was nineteen I shipped at Liverpool in the bark Althæa for Canton. Among the motley crew which, as usual, composed our mess in the forecastle, was Alfred Nevins, a youth apparently of my own age. He was of slender make and pale complexion; and his blue eyes had a saddened expression and a far-away look, as of one who had early encountered misfortune and was destined to see more than his share of adversity. His language and manner showed a refinement indicative of birth and education, and of circumstances belied by his present position.

The mother of Alfred came to bid him farewell before we cast off from the docks. With her was his little sister Alice and a fair young girl whose manner showed her to be the sweetheart of the youth who was now to climb the slippery rigging for the first time. But the hour was not propitious for a long leave-taking, and after a brief exchange of loving words, a mute pressure of the hands, the parting was over, and, answering the rough summons of the surly mate, Alfred rushed forward to bear a hand on the hawsers. As the tug swiftly drew us toward the harbor mouth, I saw him now and again steal a furtive glance toward the lessening forms waving their white handkerchiefs on the wharf.

The similarity in our ages and the fact perhaps that he discerned in me the suggestions of refinement which was the result of social station once his own, brought us gradually together. This was rendered the more easy because happily we were in the same watch. Thus many a dark night when the clipper was rushing down the trades, a huge bulk of shadow raking the stars, while a mass of foam boiled along the reeling side of the ship as she rose and fell on the measured seas with a rhythmic motion, we paced the dew-wet deck or leaned on the bulwarks and talked of home.

As our acquaintance ripened into friendship and intimacy, he told me how the failure and death of his father, a once wealthy merchant, had plunged the family into unexpected destitution. Alfred had been compelled to abandon the institution where he was studying for a profession, and, vainly seeking for congenial employment, had in a desperate hour shipped as a raw hand before the mast. He had in more prosperous days been fond of yachting as a

sport, and now fancied that his experience there would be of aid in this new pursuit. But he soon found that yachting in one's own little craft and serving in the forecastle of a merchant ship have little in common.

Indeed, Alfred, like many of his character and station, was awarded even harder lines than usual. Men who have buffeted long with the sea often entertain a whimsical but not unnatural jealousy or dislike toward fresh hands who show evidences of superior refinement or social advantages, and testify this feeling by a harshness that seems intended to express their spite against what they choose to consider an assumed superiority. The officers of a ship are also not slow to detect such qualities as Alfred possessed, and make them the objects of a peculiar grudge. If the young sailor is of sound metal, he eventually succeeds in outliving these first trials, and perhaps ends by becoming as rude and unjust as his comrades. But not unfrequently he succumbs to the terrible persecution to which he is subjected, and either runs away at the first port or, rolled up in his blanket, finds an early grave in the deep sea.

Alfred and I were in the mate's watch. This officer was not slow to make the young sailor the butt of his curses and blows. He was a short, thick-set man of powerful frame, whose stern red features were disfigured by an ugly scar from a wound in the cheek caused by the knife of a seaman who had resented Mr. Atkins' fearful temper on a previous

voyage. Mr. Atkins was a thorough mariner, but whatever might have been his disposition at home, at sea he was a terrible tyrant. So long as the mate by this course, unfortunately too common on shipboard, succeeded in maintaining discipline, Captain Gordon declined to interpose. Of greater dignity and repose of manner, as became his superior station, the captain was himself too much inclined to an arbitrary application of official power to interfere with the brutality of Mr. Atkins, a brutality so extreme that even the crew began to take sides with "the gentleman," as they mockingly dubbed Alfred at first. As he seemed inclined to accept his duties with a will, and after the first few days of sea-sickness and home-sickness, showed the good sense which cheerfully and courageously bows to the inevitable, their manner perceptibly warmed toward him.

Thus passed the voyage out. At Canton we discharged our cargo, and having loaded with tea, pointed the bow of the Althaa for home. We carried sail hard, all hands being willing to do double duty for the sake of sighting once more the chalk cliffs of Old England. One night in the middle watch, when we were in the neighborhood of the Straits of Sunda, we were booming along with a beam wind, staggering under a press of sail, the royals set and the lee channels awash in the freshening breeze that came in sighing gusts off the land. The bow was buried in a smother of foam that roared like a cataract, and now and again the

wind howled through the vast net-work of spars and rigging as the noble ship took a weather roll when a higher sea than usual rushed from under in a dark mountain, piling up to leeward. The night was inclined to be squally, with promise of a gale before morning out of the black wall of cloud that was rising on the weather quarter. The bark was evidently staggering under more canvas than she could safely carry, but Mr. Atkins held on in order to make all the longitude possible before the wind and sea rose higher. He was keeping a sharp look-out, however, perched by the weather rail of the quarter-deck, and grasping the main rigging; he had ordered the men to stand by the royal and flying jib halyards to let go and clew down at the first word. The scene, which was singularly exciting, is the more vividly impressed on my memory on account of the events which it preceded.

At last a puff came more quick and violent than usual. As the bark reeled over before it to her scuppers, a sharp crack was heard aloft, like the boom of a gun, and the fore top-gallant sail was seen flapping loose from the bolt ropes, shaking the vessel from stem to stern and threatening to carry away the fore top-gallant mast. Then ensued a scene of wild confusion, the orders following rapidly,

"Keep her away, there!" "Clew up the fore and main royals!" "Let go the fore-top-gallant halyards!" "Haul down the flying jib!" "Call the watch!" "Clew up the gaft-topsail!"

The watch tumbled up from the forecastle, rubbing their eyes and grumbling at the mate for carrying on sail so long that he was forced to disturb their dearly-bought slumbers. They knew well enough what it meant for them when they saw the position of the ship, the flapping sails aloft and the driving scud obscuring the stars. All hands were busy for an hour getting the laboring ship snug under topsails. Then the watch were about to turn in again when the increasing force of the wind and sea suggested a reef in the topsails and all hands again went aloft excepting the man at the wheel; this, most unfortunately, happened to be Alfred Nevins. He and Mr. Atkins had the deck to themselves and the master was asleep in his berth. The darkness was increasing, attended with spiteful dashes of rain, and an occasional flash of lightning in the offing.

I was at the weather main-topsail earing, not feeling especially secure at that lofty height, tugging away with both hands to draw the cringle out to the yard-arm, clinging with one leg thrown over the spar, which rose and fell, sweeping with vast curves through the windy air, while the heavy folds of the wet sail flew out or flapped against the rigging with a force that threatened to jerk the line of dark forms on the yard into the frothing yeast of foam below. Suddenly we became aware that the ship was off her course and taken aback, showing that the man at the wheel was either steering wildly or had abandoned the helm. In the wind that was blowing, and the sea against which she was driving

stern on unmanageable, it was evident the ship was in the imminent danger of foundering. While we aloft were lost in amazement at the crisis and awaiting fresh orders from on deck, the changed movement of the ship, and the trembling of the rigging and hull, aroused the captain. Leaping from his berth he rushed on deck in his shirt, He found the mate gone, and without waiting to ask for the reason, at once ordered all hands down from the rigging to save the ship. Not a moment was to be lost. Grasping halyards or stays we slipped down to the deck in a trice, and were commanded to lower the spanker and brace about the yards, while the helm was trimmed to meet the emergency. Every effort was put forth by all on board. Death stared us in the face, peering grimly over the taffrail and yearning to draw us down to the black depths. We thought of those at home, and by energy almost superhuman, at last succeeded in getting the vessel again under headway, and drawing off from the ingulfing surges.

This danger was over for the time; but now a new terror, a mysterious horror hung over the ship, causing us to speak in whispers. There was one less man on board, and he that was missing was the mate. The circumstance that the bark was taken so strangely aback while Alfred was steering, and that he alone said nothing on the subject, suggested to all the unspoken thought that he knew more about the disappearance of the mate than he cared to tell. During the dog-watches Mr. Atkins had

severely maltreated him, and we now seemed instinctively to perceive some relation between the two events.

I hardly dared permit myself to harbor the thought of what this meant, such was my sympathy for the poor fellow, and so brotherly was my attachment for him. But Captain Gordon felt no such hesitation. Having made all snug aloft, he proceeded to interrogate Alfred in a tone which indicated that he had already decided the matter in his own mind. It was a weird scene on the deck of the ship that dark, tumultuous night, as Captain Gordon fiercely demanded of the pale youth before him an account of the disappearance of the mate. Alfred stated that Mr. Atkins approached him gruffly and in his usual brutal manner and rated him as a lazy hound for not minding the wheel properly, although doing his best to hold the unruly ship on her course. On being answered to that effect, the mate roared that he allowed no man to bandy words with him, and struck him heavily. Actually fearing for his life from the fury of a man crazed by the authority he held, the boy sought to defend himself, and the two clinched in a death embrace. It was at that moment that, the wheel being abandoned, the bark was taken aback. The mate by sheer force dragged the youth to the taffrail, and, as they bent over it, the one trying to hurl the other into the sea, Alfred was so nerved by desperation that the mate, although much the more powerful, could not accomplish his fell purpose. Finding himself baffled, he drew Alfred's knife from the sheath in his belt and sought to stab him. Alfred, with a superhuman effort, tore himself from the iron grip of his enemy, and at the same moment a lurch of the ship caused the mate to lose his balance and fall overboard.

This was the story Alfred told, and from what we knew of the relations of the two men, there was nothing to make it impossible. The fact that he had not given the alarm the moment Mr. Atkins disappeared was not necessarily against him; the agitation natural after such a struggle, in which he himself had nearly been the victim, would, for the time, numb his sensibilities, while the conduct of his tormentor had been such as to prevent any special anxiety to save him. Captain Gordon was on the point of reluctantly accepting this explanation, probably hoping later on to gain further cleus to the mysterious fate of his mate, when his foot struck a sailor's knife lying on the deck. It was found to be covered with blood; further inspection revealed the fact that Alfred's knife was missing from its sheath, and the light of the lantern discovered the spatter of blood on his own clothes. The horror and surprise he exhibited on this discovery might have been caused by a sense of the position in which he now found himself; yet it was useless to deny that the proofs of murder were of the most damning character.

With fierce exultation Captain Gordon ordered the carpenter to bring his rivets and chains.

The slender wrists and ankles of the trembling youth were manacled and he was thrown into stifling hole under the booby hatch, where there was neither room to stand up nor to lie down. Twice a day bread and water and occasionally a bit of spoiled beef were doled out to him. As for us in the forecastle, opinion in regard to Alfred's guilt was divided. All agreed that so far as provocation was concerned he was amply justified in killing his persecutor on the first fair opportunity. But on the question of fact the majority agreed that it "looked black for Al. Luck had been agin' him from the day he put foot on this bloody ship." Two or three, like myself, entertained a hope that somehow, sometime, a happy solution of the mystery would be found in time to save him from the gallows. But, after all, this was but a forlorn hope that when sifted down afforded but slight ground for defense. As I paced the deck night after night while the ship plowed her way nearer to England, and thought of my poor friend pining in chains below, my heart gave way to despair. What anguish awaited his friends, and what horrors were in store for him when the law claimed another victim to satisfy the rulings of circumstantial evidence.

With a "yo heave o!' we warped the ship up to her berth in the docks of Liverpool. One of the first acts of Captain Gordon, after making his ship snug at the wharf, was to send for the officers of the law. With bated breath the crew stopped in their work to see the pale, manacled boy led up from between decks, and with a stalwart officer griping each arm, dragging himself to the prison van that was to carry him away.

Seeing us standing as lookers-on, our faces indicating a deep sympathy for our shipmate, the second mate yelled, "Here you Tom, Jim, Brown, all of you, you lazy loons! What are you standing there for, gaping as if that's what you are paid for! Per'aps you think it's May-day and you're going of a-gatherin' sea posies in Patigony! or per'aps you'd like to have a berth alongside of that ere murderin' chap what's gone ashore. Now then, stand by, and bowse on that ere line, or 'll blow your bloody heads off your lazy shoulders!"

Such talk is heard so often as a matter of course on the forecastle of a sailing ship that with only a curse muttered under the breath we fell to work again until our wages were told off and we were sent ashore to have our bones picked by the landsharks and covies keeping a sharp look-out for us at the first corner under the den ironically styled "The Sailor's Retreat." When our hard-earned shillings had oozed out of our pockets in the myriad-reeking groggeries of one of the wickedest cities of the world, we began to think of shipping once more. But we were soon made aware by the grim ogres of the law that to witness a crime is next door to committing one. Subpænaed we were, those of our crew who had not already conveniently

fled the town, being held to testify in the case of the Crown vs. Alfred Nevins, committed for murder on the high seas.

Those of our number who could not give bonds for appearance at the assizes were considerately offered board and lodgings in the jail. As the state allowed us no option in the matter, we found ourselves in the attractive position of prisoners bound to swear away the life of a shipmate whom we considered innocent, or at least deserving of a better fate. Society in providing remedies for its security, has been obliged to ordain certain methods that are certainly open to question.

The day came at last which was to decide the fate of Alfred Nevins. Wan and cast down, the poor prisoner sat in the dock too deeply overwhelmed by his appalling position to take note of the machinery of the law prepared to harrow his soul in the few hours left to him here, and toss him unfeelingly into the mysterious chaos and gloom of life beyond this poor, sorrowful existence of a suffering mortality. The counsel on either side, important in official robes and wigs, were busy looking over their papers: the jury, with solemn, expressionless faces, were primly seated in the place appointed for the decision of the destiny of their fellow-mortals. The judge, wigged in the most imposing style, armed with a massive, official double chin and a hard. pursed-up lip, was listening now to this, now to that officer, preparatory to the opening of the court. In a corner by themselves curiously or sympathetically observed by a few of the spectators, sat the widowed mother of the prisoner at the bar, with his little sister on one side and his betrothed on the other. Who shall tell the settled despair that looked forth from their downcast eyes as they clung to each other in mute amazement at the doom that had thrown its shadow over their lives. The sight of that affecting group suddenly brought the tears to my own eyes, and I was forced to summon to my aid all the fortitude of a British tar in order not to lose command of myself before the court.

The queen's counsel opened the case by a thrilling description of the foul murder of a tried and noble English seaman when in the discharge of his duty. After a long and severe voyage, the noble counsel went on to say, he was once more on the way home, looking forward with joy to the hour that should restore him to the bosom of his family. They, in turn, were counting the hours that should bring the absent husband and father to their arms and give him repose after the arduous hardships of life at sea. In a moment, in the twinkling of an eye, as it were, in the face of the laws of God and of man, in defiance of the discipline so absolutely essential to the preservation of order on shipboard and without regard to the ties which could have protected him from the ruffian's blows, he was treacherously attacked, wounded to the death and cast overboard without prayer or burial by a miscreant whose youth, whose family, and whose early education and associations gave promise of reaching a

higher end. Alfred Nevins, unmindful of the mother who bore him, of the respected father now alas in the tomb, and of all the considerations that lead to rectitude and elevation of character, had basely yielded to the dictates of passion or of motives best known to his own depraved nature. Happily for order and civilization, there were laws by which he could be justly tried, and as would undoubtedly be the case, condemned. Far be it for the prosecution in this trying hour to say aught to add to the miseries of his position or the sorrow of the family now suffering for his crime; but it was his duty, painful though it be, to remind the jury that they were not there to listen to the promptings of sympathy for the prisoner at the bar or his friends. Their duty was plain; it was for them to pay careful heed to the testimony, and to bring in a verdict that would be in accordance with the facts and the law. What that verdict would be the eminent counsel affirmed that he had no doubt; the eyes of England were upon them; in view of the facts there could be but one result, and he looked to them to justify the confidence placed in their intelligence, their virtue, and their patriotism.

Such in brief was the presentation of the case by the counsel for the prosecution. There was blood in his eye when he sat down wiping his spacious brow with the massive folds of a scarlet-silk handkerchief. The impression made by this speech was profound. Although the witnesses had not yet been called, it was felt that the facts were so one sided, and the laws in regard to crimes of this sort were so rigid and unrelenting that the case was practically settled almost before it had begun; only a miracle could save Alfred Nevins from the gallows.

Captain Gordon was the first witness called. His testimony was in accordance with the facts so far as known to him. When my turn came it was with the utmost reluctance and with illy-concealed agitation that I was able to reply to the searching questions of the prosecution. Once I ventured to say that I felt assured of the innocence of the prisoner; that an explanation of the mystery would come to light sometime, and that the dead mate was a brute who deserved a thousand deaths, before the law should dare to touch a hair of one as guiltless of such a crime as the prisoner. But before I could complete my impromptu plea for my poor friend, the counsel shook his quivering finger at me, saying, "Have you a care, young man; you are not here to plead but to answer; beware lest you render yourself liable for contempt by your brazen assurance!" Witnesses are, I regret to have to admit, too often made the game of the agents of the law. The testimony of the various witnesses, however reluctantly given, was to the same effect, all one way.

The most that the counsel for the defense could present to offset this testimony was to plead the hitherto unblemished character of the prisoner and the important fact that no one had seen

him commit the deed. He pled with powerful eloquence against condemning the life of a fellow-being on no better evidence than this, in the face of his previous character, and of the impossibility that one so young and so noble could thus suddenly develop into a cruel murderer and felon. He urged that in a case depending wholly on circumstantial evidence the good character of a prisoner ought to be accepted as a strong point in his favor; and that under circumstances like these to take life was a crime for which society must eventually suffer. The principle that it is better that nine guilty men should escape than that one innocent man be condemned, if it has any force at all, was certainly applicable to the case of Alfred Nevins. "May it please the court and jury," continued the counsel in the most impressive manner, "I beg to emphasize the postulate that to condemn and hang a prisoner whose entire previous life and character are wholly opposed to the commission of such a crime, solely on presumptive evidence, is scarcely a less crime than that for which he is accused. Condemn this poor, pale, misfortune-ridden youth, the plaything of a mysterious destiny, if you will; consider not, weigh not, the purity of his life, the noble unselfishness that led him to seek a livelihood for his widowed mother and orphaned sister on the stormy seas and on a ship whose brutal officers were more harsh and heartless than tigers of the wilderness; his fate is in your hands; but know that surely as the last great day when we shall all be judged shall come, his innocence will be proved and the laws by which we now condemn men to death on circumstantial evidence alone will be wiped out from the statute books, and the age that permitted such laws will be accounted barbarian."

The prosecuting counsel in summing up the evidence, replied that whatever might be the Utopian code to which his learned friend on the opposite side aspired, in the case under consideration, we unfortunately were not permitted to act as lawgivers, or legislators, but as expounders of the law as it existed. Under that law Alfred Nevins stood condemned. Under that law he had received a fair trial, and there could only be one conclusion from the testimony rendered by more than twenty witnesses, all good men and true. If we were to allow our sympathies to guide our reason in such cases; we might better shut up our statutes, close the courts, and let red-handed anarchy reign over land and sea. This was not a question of sympathy; that was for the Crown in its mercy to decide. In this court, at this hour, the jury had only to consider the law.

The summing up and presentation of the case by the presiding judge was similar in effect to that of the queen's counsel, although more brief and rendered with the usual solemn platitudes that give such inexplicable weight to even the most mediocre dispensers of legal wisdom from the woolsack. If the jury on consideration of the law

and the facts found against the prisoner, then they were to render a verdict of guilty; if on the other hand, they discovered palliating circumstances or that the evidence was insufficient, it was their duty to find for the prisoner of the bar. But they should remember that the case was free from subtleties, the law being clear on the points at issue, and that the weal of society required a rigorous application of the laws ordained by long usage for the protection of men in the pursuit of their avocations. Crimes on the high seas were in the nature of the case easy of performance, and often difficult to bring home to the guilty parties; such crimes had unfortunately been too common of late. While the jury should not bring in a verdict against the evidence, they should allow no false sympathy to swerve them from a strict interpretation of the law.

It was felt that the charge of the judge bore against the prisoner, and every one was prepared for an unfavorable verdict. Yet so long as the worst is not known, there is hope, so strange are the workings of the human heart. When the jury came in, all hope departed; the solemnity of their manner announced the decision. But when the foreman, with tears in his eyes, pronounced the words, "Guilty of murder in the first degree," a piercing shriek thrilled every heart with anguish and horror. Agnes, the betrothed of the doomed, had thus given vent to the terrible despair of that agonizing moment, and fallen into a dead syncope

from which she was only revived with difficulty, and then only to pass into the state of a raving maniac. The wretched mother sat apparently unmoved during this awful scene, but in reality her calmness was that of a despair so overpowering that her sensibilities were benumbed, and she seemed like one transfixed to stone. The little sister was also paralyzed by the horror of an hour too dreadful for language, and could only sit and wring her hands while the tears fell in a steady stream unheeded.

The judge, in a low and husky tone, directed them to be removed, the only evidence of pity exhibited by the bench during the proceedings. When the prisoner's family had been taken from the court-room, the judge ordered the prisoner to stand up. During this interval I had scarcely dared to look at him, such had been my agitation in the presence of such extreme sorrow and so intense my self-accusation that I had allowed myself to be driven to uttering a word that might prove a nail in his coffin. But when I now saw him standing before the court to hear his sentence, what a change had come over him. The flaccid face had hardened, the bent quivering frame was firm and erect, and the eye that had been unsettled in its expression of suspense, anxiety and pain, was cold, stern, defiant, nay heroic, in the nerve and courage that burned there while he gazed with steady aim at the judge.

"Alfred Nevins, what have you to say, why

sentence should not be passed upon you?" demanded the judge in a deep deliberate metallic voice.

"I have to answer," replied the prisoner with deliberate enunciation, "that I am not guilty of the grave crime laid to my charge. I am the victim of circumstances beyond my control; but while the laws are constituted as they are now, I must look for my vindication to another tribunal to which you are now sending me, and before which I appear without fear and without reproach. It is terrible to die in this way, but I accept my doom if it can lead to a reconstruction of the criminal laws of our land."

The short address of the prisoner produced a profound impression; had he been permitted to testify for himself before the jury went out, the verdict might have been different. But the judge had heard so many similar dying pleas that the words of the condemned produced no apparent effect upon him; at least, none to which he could give expression in view of the solemn duty he now had to discharge.

As nearly as I can remember, the sentence was as follows:

"Prisoner at the bar: you have received a fair trial before a jury of your own countrymen; they have weighed the facts and have adjudged you worthy of death; their opinion appears to this court to be just; it is in accordance with the law and the evidence; your crime is aggravated by the advantages of early education which you enjoyed and the recklessness with which you forgot the con-

sideration of family ties that should have led you to hesitate before jeopardizing their happiness for the gratification of a private grudge, for which the laws you condemn had offered adequate remedies. It only remains for me to pronounce the sentence of this court, which is that you be taken to the place of public execution two weeks from this day, being the 10th day of December next, there to be hanged by the neck until you are dead, and may God have mercy on your soul."

The prisoner heard the sentence unmoved, except that his face became for an instant even more pale than was its wont. He was removed to his cell, and I saw him no more until the fatal day. Once I sought admittance to his presence, but he sent me word that while he bore me no ill-will for testifying against him, no good could come of his seeing any one again in this world. He had steeled himself to die like a man, and no one would he see except the jailor. Not even the chaplain would he allow to speak to him in this awful crisis of his destiny. He had sinned like others, he said, but never to a degree demanding such a penalty; his life had been short and bitter; and if Providence had aught of consolation or justification in store for him, he would wait until he reached the next world and understood matters more clearly than any one could explain them here. The chaplain, good, narrow soul, of course took this refusal to see him as evidence of determined, contumacious guilt. Perhaps he knows better now, for both have long

since passed to the land of revelations where the accounts are balanced and the wrongs of this life, let us hope, are righted and the problems explained that make so many skeptics in this world.

But the case was not allowed to rest here. The story of the poor sailor boy and his friends aroused a wide sympathy, and many, even among those who believed Alfred to be guilty, felt that the extreme penalty of the law should be remitted at least for transportation or life imprisonment. It was argued that his youth and previous good character suggested sufficient grounds for executive clemency, together with the admitted brutal provocations which might well have driven him to this deed. A subscription was started and a purse given to Mrs. Nevins, who with her daughter and the good pastor of the family, went up to London to intercede with the Queen. The case was urgent; the interval between sentence and execution was short in those days. No time was to be lost. After many needless delays, owing to the apathy of the intermediate officials and the red tape of circumlocution bureaus, the mother of Alfred was at last admitted to plead his cause in person. Something must be said for the refusal of the Crown to grant a pardon. So many cases are brought to its consideration, often with pity for the afflicted family as the only reason for pardon, that it is excessively difficult to distinguish between cases that are really deserving and those that should be dismissed ungranted. The law, until changed, must be executed or it loses efficacy as a protector of social order. So reasoned the advisers of the Queen in the present instance.

Alfred Nevins died with fortitude. The family was allowed to bury the body in the family vault, the only property left them in the wreck of their estate. Agnes was now in the insane asylum, where she remained until her death. Mrs. Nevins, sinking under her accumulated sufferings, followed her son within a month and was laid by his side. There remained only his little sister. I adopted and placed her at a small school kept by an estimable widow lady. A small patrimony falling to me at this time, I was enabled to carry out this plan. About the same time also the position of second mate was offered me, and having no other business in view, I decided to accept the berth, although resolving sooner or later to abandon the sea and adopt some civil pursuit.

Three years after these sad events I fe ill at New Orleans with a fever, and my ship was obliged to sail without me; I was left in the hospital, a lodging which under the best of circumstances offers but few attractions. During the period of convalescence my attention was attracted to a seaman lying in the same ward; his ravings had drawn my attention, and when I was able to hobble about the apartment I went to his bedside, led by a singular instinct. The emaciated features had yet a familiar look; where had I seen that face before? Suddenly the truth flashed upon me with a shock that caused my heart to beat with such violence I

was forced to lean against the wall for support. One of the attendants, himself a superannuated seaman, seeing my condition hurried to my assistance. I could only gasp, "Who is he, what is his name?" "His name? why, don't you know, that's Jim Atkins, master of the tug Belle Creole. A tough one he is too; it's been his luck these many years, allers to come up on the top of the heap; but I 'speckt he's agoin' to slip his cable this time; the number of his mess'll be wanting afore another sun rises."

Atkins it was indeed, for whom Alfred Nevins had been hanged! It was evident that he had not long to live; his large, coarse bronzed features were dreadfully emaciated and flushed with the fever-flame; the enormous bony hands lay on the bedspread limp and yet sometimes clutching the quilt with a grip that had in it some of the demoniac strength of the days when he wielded the cat. on a sailor's bare back or tossed men across the deck like pups. I saw that when the fever left him he would probably sink into a final collapse soon after; as it often happens that at such a time a patient has a lucid interval before death closes his lips, I nerved myself to sit by his bedside and watch; for I sought a vindication of the good name of my poor friend Alfred.

As I anticipated, toward midnight the dying man became calm and in a feeble and rational tone called for a drink of water. Motioning to the attendant to step one side I handed the water to him myself. I raised his head and held the cup to his lips; when his head fell back his eyes looked into mine; he gazed some moments, vacantly, then with growing intelligence, as if recalling some vague memory; then he whispered, "Jack, is that you?"

"Yes, Mr. Atkins, it's me; it's a long time since we met on the old bark Althaa. I'm glad you remember me. You've been a pretty sick man, but your mind seems to be all right again," I replied.

"Yes; but I don't much think I shall pull through, though. Oh, my God, my God!"

"Is there any thing I can do for you, shipmate, any message you want to send to your friends? Perhaps there's something you want to say."

"Ay, ay, there is something." He shut his eyes and gasped as if he wanted to speak and yet hesitated. I beckoned to the attendant and whispered to him to stand by and listen carefully to whatever the dying man might say.

"You remember Alf Nevins, don't you?" I repeated slowly, as if to jog his memory, and stroking his clammy forehead.

"Ay, that's what I want to say," he gasped.

"It's about him; they tell me he was hanged because of me—'twan't his fault—I was mad—I tried to—stab him—and I cut myself as I fell overboard when she gave a lurch—I caught a floating log—they picked me up—a passing ship, you know—One thing more—

there's money in the bank here—write that down
—I—William Atkins—send it to his family—the
family of Alfred Nevins—it's all I have."

The last sentences we took down on a scrap of paper and I held his hand while he signed this as it were nuncupatory will. He died when the sun arose. As soon as I was sufficiently recovered I returned to England and immediately caused all the facts to be published. I also called on the learned judge himself and presented my statement.

"Dear me," said he, "how very dreadful all this is; but really I do not see how any one can be blamed for this most unfortunate result; law, you know, is law."

"Granting what you say, sir," I replied, "yet it is not too late to prevent the recurrence of such terrible mischances. Do you remember that young Nevins said that he would accept his doom without a murmur if it could lead to the reconstruction of our criminal laws?"

"Ah yes, to be sure, he did say something of the sort; but of course it was the mere raving of a wretch who was justly condemned."

"Do I understand you aright? How could he be justly condemned if innocent?" I answered with some asperity.

"I mean, of course, being tried on the evidence, he was condemned according to the laws of evidence; those laws are the result of long experience tempered by wisdom. Naturally cases must occur where the operations of the law are attended with some hardship; but in the main they work with

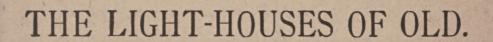
beautiful precision, and move with a majesty that every true Englishman admires and reveres."

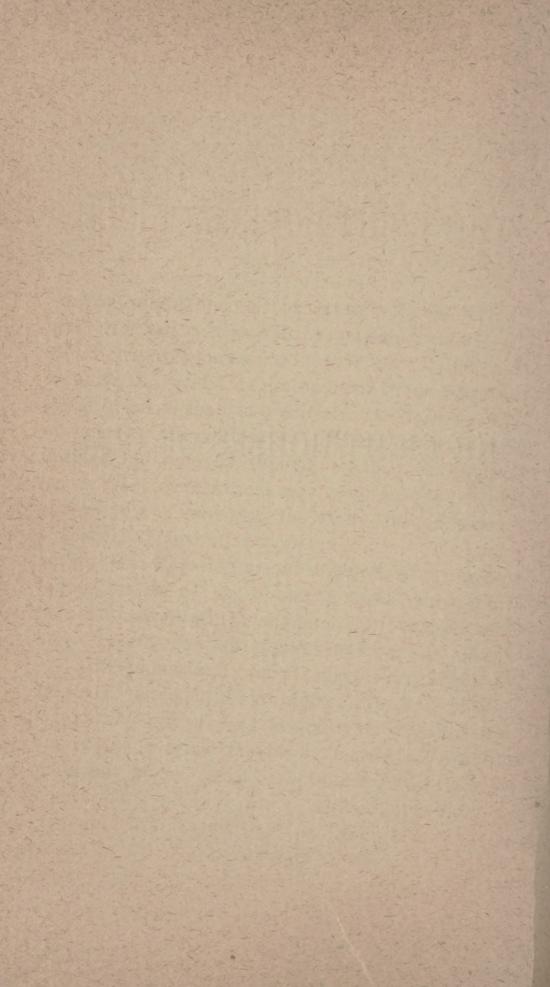
"But does it not occur to you, sir, that remedies might be found to meet and relieve exceptional cases like this? does it not seem possible, righteous and just that prisoners tried for their lives on merely circumstantial evidence should have the benefit of the doubt which such evidence often suggests, and at least be let off with their lives, the sentence being commuted to a life-imprisonment? do you not see, sir, that this allows a chance of the benefit of any later developments or testimony, which, as in the case of Nevins, completely exculpate the alleged criminal or palliate his deed? by such procedure the rights of society may be vindicated at the same time."

"My dear sir," replied his honor, falling back on his British conservatism and retiring within his shell of professional reserve, "the subject you have introduced is a large one and is really quite beyond my province; my business is to administer not to criticise a code for which Englishmen have just reason to be proud." He began to fumble a pile of documents; seizing the hint I bowed myself out. But the events I have now narrated led me to reflect more deeply than ever on the choice of a pursuit in place of the sea life I now resolved to abandon. I could not hesitate what it should be. I adopted the profession of law, selecting criminal law as my department; I did this with the determination of doing all in my power to alter the

existing operation of the laws bearing on circumstantial evidence. In the course of a long practice it has been my happiness to cause the death-sentence of more than one poor wretch to be commuted to imprisonment. In three cases subsequent revelations have caused their release. Although the laws on this point are still unchanged, there is now a growing sentiment in the community against the execution of the capital penalty in cases depending wholly upon circumstantial evidence for proof. It may reasonably be hoped that the laws themselves bearing on the subject may be radically changed ere long; for after all has been urged to the contrary, it is better that nine guilty men escape, than that one innocent man should suffer. Life-sentence instead of death should be the maxim in all doubtful cases.

Alice Nevins, the sister of Alfred, grew up to be a handsome and intelligent woman. A tinge of sadness deepened the loveliness of her expression, a sadness which has gradually passed away since she became my wife. Our oldest, a boy, bears the name of Alfred, and resembles him in looks and disposition. It is my hope that he will devote his energies to a readjustment of the penalties awarded in cases decided on circumstantial evidence alone.





THE LIGHT-HOUSES OF OLD.

THE life of man is a battle to maintain the bare fact of existence. There is scarce any thing that calls for the action of his energies which does not grow out of this endless and desperate struggle with a remorseless destiny that aims at his vitals as soon as he comes into the world. If he stays on land, the contest is sufficiently severe; but if, lured by ignorance, he ventures his fortunes on the seas, he then has still more cause to wonder why he was created, for what was at one time comparatively a safeguard, becomes at once a peril. Resenting the whim which leads a man to go to sea, no sooner does he leave the land than it becomes an enemy to him, and on every hand threatens his ship and his life with reefs, shoals, and implacable cliffs.

With Nature thus fighting for his life both by land and sea, this plaything of the storms, this puppet of Fate, is forced to invent various means and devise every precaution to avoid losing the questionable gift of life. One of these is a system of warning-signals to avert him from the dangers awaiting him as he approaches a coast. Beacons by day, light-houses by night, are some of the

means thus employed. But so admirable are the light-houses which during the last century have been erected by civilized nations, so complete is the organization that regulates them, that we are liable to conclude that light-houses or beacon-flames as a guidance to the mariner are a recent invention.

But although, when we pursue our inquiries on the subject beyond the fourteenth century, we meet with only brief data, and must sometimes resort to conjecture, yet enough has been recorded in the chronicles of the past to enable us to know that at least three thousand years ago the wits of man were called into play to devise means of approaching a dangerous coast in safety. The first attempt of this sort was simply a bonfire on the brow of a cliff. Then followed rude towers lit with burning torches. Something resembling this is indicated in the light with which it is said Hero sought to beacon Leander to her arms; while at the northern mouth of the Thracian Bosphorus, overlooking the stormy Euxine, we find undoubtedly one of the first spots where the mariner of prehistoric times sought to guide his uncertain path over the treacherous seas. The legends which surrounded that locality, and already invested it in the time of Jason with vague terrors that doubtless had a basis in fact, indicate that this would naturally have been the scene for beacon-fires and torch-lit towers, as it is at the present day. On the low promontories which jut beyond the high, precipitous shores, light-houses were undoubtedly

placed at a very early day. What is even more than conjecture is the fact that on the lofty hill on the eastern side of the Bosphorus, near the entrance, a warning flame was placed at a very remote period, for we know that many hundred years before Christ a temple stood there dedicated to Jupiter Urius, as the god of mariners and storms, and that sailors ascended there to consult the omens before venturing to brave the lowering Euxine. Remains of that temple are found there to this day, and Turkish sailors still climb to that height in dubious weather to consult the signs of the heavens before trusting their clumsy picturesque coasters to the wrath of the genius of the Black Sea.

It is curious that no record is made of light-houses in Greece at a time when Pericles was fortifying Athens in such a magnificent manner, and furnishing her three ports with the finest harbor defenses and dockyards of antiquity. And yet there is every reason to believe that the narrow entrance to the Piræus was indicated by beacon-lights at least.

Over one hundred years later was erected the famous Colossus of Rhodes. Designed by the sculptor Chares, it was of bronze, one hundred and five Grecian feet in height, or about one hundred and twenty English feet, and stood commandingly over the narrow entrance of the port. It is stated that the colossus was constructed in honor of Apollo, and there is some uncertainty as to its hav-

ing been erected exclusively for a light-house; but its position, and the very fact that Apollo was the god of light, give color to the well-defined tradition that this statue also held a torch in its gigantic uplifted right hand to guide the mariner at night, the light being reached by a stairway in the arm. The colossus reminds us of the hypothesis that the Cyclops of Sicily was really a beacon-tower, whose single eye in the middle of his forehead was in reality a torch.

But the most famous of all light-houses, and at the same time the first one of which we have a tolerably complete description, and a specific statement that it was built expressly for such a purpose, was the Pharos of Alexandria, in Egypt. It was built by Ptolemy Philadelphus, about 270 B. C., on a small island at the entrance to the harbor, and was connected by a causeway with the mainland. The Pharos cost eight hundred talents: if these were silver talents, as most likely they were, that would be equal to \$850,000, probably the largest sum ever expended on a light-house. The base of this structure was said to have been some four hundred feet square. This probably referred to a wall of circumvallation, although it is not impossible that the typical form of Egyptian architecture, the pyramid, may have been partly adopted in the construction of the Pharos. But, although pyramidal in general form, this outline was broken by different stories, decorated with galleries and columns, and, as the whole was built of white marble, the effect must

have been at once elegant and impressive. The height was about four hundred and fifty feet above the sea-level; at the summit fires were kept burning to direct the mariner through the tortuous entrance into the bay.

It was said by some of the ancients that the flame of the Pharos could be discerned one hundred miles at sea, which is a most preposterous estimate, especially as they had no night-glasses in those times to assist the vision. A first-class light of modern times, with all the latest inventions for increasing the intensity, is only visible thirty miles at sea, without regard to the height of its elevation. It is altogether unlikely that the smoky gleams of the ancient Pharos were seen over twenty to twenty-five miles on a clear night.

One of the most remarkable circumstances connected with the Pharos was regarding its architect, Sostratus. It seems he was anxious to perpetuate a sort of copyright to his authorship in the work, and according to Strabo he caused the following inscription to be cut into the marble: "Sostratus the Cnidian, son of Dexiphanes, to the gods the preservers, for the advantage of mariners." That Ptolemy should have been willing to have an inscription placed on the Pharos which awarded to another the whole glory of the undertaking, seems an excess of magnanimity hardly to be expected in an Oriental monarch, although he might have permitted the addition of a legend simply stating the name of the architect. It is therefore not surprising to find

that another ancient writer states explicitly that, after cutting the above inscription in the stone, Sostratus caused it to be filled in a hard cement, on which he engraved another inscription, awarding the credit of the work to the king, its founder. In the course of ages, the cement wearing away, the original inscription was revealed. Some commentators have considered this last statement absurd. To us, aside from the unnecessary invention of a tale that would be altogether gratuitous, this seems far more likely, from the nature of the case, to be the true version of the fact.

But whatever be the truth regarding Sostratus, the work of his genius continued for ages to shed its beneficent rays over the tossing waters of the Mediterranean, "nocturnis ignibus cursum navium regens," as Pliny records. It is not generally known that the Pharos stood until 1303, or something over sixteen hundred years. But to what cause it finally owed its destruction does not seem to be distinctly recorded. It is certainly a fact so remarkable as to be something more than a coincidence that so many of the masterpieces of ancient architecture should have survived the wreck of so many centuries until the revival of the arts in Europe was preparing the world once more to appreciate their merits, and then, by one untoward event or another, were either completely destroyed, or, like the Parthenon, sadly mutilated.

The imagination of the Saracens, ever lively and fond of attributing something supernatural to whatever was uncommon, gave rise in the

Dark Ages to the legend that Alexander the great was the builder of the pharos, placing at the summit a mirror endowed with talismanic virtues. Such was its mystic power that it was said approaching ships, while still at a long distance, could see themselves reflected in this mirror. What was a yet more remarkable property of this magic reflector, and one that gave the Pharos a singular celebrity in those ages, was the circumstance that on the duration of this mirror was supposed to hang the existence of Alexandria. In our more practical age we can see that a certain degree of truth was involved in the legend. The continued existence of the Pharos implied the commercial prosperity of Alexandria; while its destruction would seem to suggest a decline in the maritime trade of one of the great emporiums of antiquity. This interlinking of the fate of city and beacon-fire was emphasized by the fact that the Pharos, situated as it was on the west side of the very narrow entrance to the port, served the double purpose of light-house and fortress, thus protecting the two dearest interests of the neighboring city.

The building of the Pharos of Alexandria became the signal for the construction of many light-houses of somewhat elaborate character. That Carthage, the greatest purely maritime power of the ancient world, protected her mariners by light-houses is altogether likely, especially as the dockyards and mole of her port were of the most extensive and complete character. But that the Romans, after

the fame of the Pharos of Alexandria became noised abroad, gave considerable attention to lighting the entrance to their harbors at least, is a fact of precise record, the generic name given by them to light-houses being borrowed from that of the original Pharos, as it has also been perpetuated by the Latin nations of modern times. Light-houses are mentioned at Caprea, Ostia, and Puteoli. One at Ravenna is stated to have equaled that of Alexandria in splendor. Nor did the Romans confine these hospitable structures only to the coasts of Italy, but with the wide, farreaching, and beneficent policy which they followed in all their conquests, as soon as a country was fairly quiescent under their sway, the line of their costly light-houses extended from the Atlantic to the Euxine, from Britain to Pontus. Especially noteworthy among the light-houses of this mighty empire were those at the mouth of the Guadalquivir, near Gades; at the mouth of the Chrysorhoas, on the coast of Syria; at Rhodes; on the Bosphorus; and at Cyzicus, in the sea of Marmora. A fair indication this of the former commercial importance of Cyzicus, of which now but the merest fishingvillage remains.

Pompey's Pillar, at Alexandria, singularly so called, for it was erected by Diocletian, is reputed to have served as a beacon. On the coast of Britain numerous light-houses, either simple or elaborate, were also erected by the Romans, of which in a few instances remains still exist. There

was one, for example, at Dover, and another on the opposite coast of France at Boulogne. The widely-spread diffusion of what seems to have been an organized system of light-houses under government control is also evidenced by the designs of such structures still preserved on old Roman coins.

At Gaireg, in Wales, we find still another relic of the Roman Empire and of the general beneficence of its rule. An old Roman light-house actually stands there to this day, intended originally to guide the mariner along the tortuous channel from Deva, or Chester, to Seteia Portus. It is circular, quite lofty, and the interior diameter is twelve and a half feet, while the extreme diameter is twenty-one feet. In the upper story, on the side exposed to the sea, are eight small square holes faced with free-stone. Each of these apertures was formerly separated from the others by strong partitions of wood, and a torch of fire was burned nightly in each compartment. The light was thus divided in order to prevent the light as a whole from appearing at a distance like a star. The light-house at Dover seems to have been constructed very much after the same plan. Another Roman, or more likely Celtic, lighthouse appears to have stood on the height in the north of Wales now called Holyhead, but in former days named Peny Gaer Gybi, or Hill of Flames.

About a league from Corunna, in Spain, one may still see the remains of another Roman light-house from a lofty height guiding the mariner tossed on the stormy waves of Biscay's turbulent waters. The

form and position of this venerable structure, perhaps also other reasons of which the memory is forgotten, seems to have produced a strong impression upon the popular mind in bygone ages, for legends have been attached to it, and it is actually the subject of a chapter in that wild, grotesque, old-time romance called the "Troy Boke," forming the second section of that story. In that veracious chronicle it is recorded that Hercules built that light-house over the tomb of the giant Gerian whom he had slain, raising it in honor of the heroine Corogne. At the summit of the structure he fixed a statue of bronze, and in the hands placed a mirror which was indeed a safeguard to the city and adjacent territory, because, whenever a hostile fleet was approaching the coast, it was reflected in that wonderful mirror, and thus, its attack being anticipated, was baffled.

The generous, far-sighted conduct of Rome in all that related to its commercial relations was again discernible in its system of light coast-guard galleys watching the sea with a cresset or flame at the mast-head. These vessels were of especial use at the time when corsairs swept the Mediterranean, destroying many ships, and obliging Pompey to exterminate them. It is not a little curious that his sons in turn should have become corsairs, and afflicted Rome after the death of their father. Stationary light-ships do not seem to have been employed, however, until the eighteenth century.

When we come to a consideration of the times

when Christianity became a dominating influence in the progress of civilization, we find that the convents and orders of monks which were so generally beneficent in those ages, being suited to the peculiar needs of a society that was passing from one condition to another, also assisted in devising means for the protection of the tempest-tossed mariner, and, when no light-houses existed, exhibited from the headlands on which their convents were situated, whether by the ocean-side or overlooking the devious Rhine, fires of wood or torches dipped in tar, for the benefit of galleys or rafts. Thus at Sagres, on Cape St. Vincent, one of the wildest capes of Europe, forevermore lashed by the thundering surges of the Atlantic, the beacon flame of the friendly Fathers, composed of pine-fagots or torches suspended in an iron cage, warned the sailor to steer for the open sea.

And thus the ages came and went. Commerce, after the fall of the Roman Empire, once more increased; navigation became more scientific and daring than ever before; the invention of the compass, and the construction of ships better adapted to buffet ocean-storms, brought with them also the growing necessity of devising means for increasing the safety of life and property; methods of insuring ships were also introduced, a measure which had obtained vogue in the prosperous times of Greece and Rome, but had gradually died out, until Venice again brought it into practice. Thus, too, in the most natural manner, a more perfect

system of lighting dangerous coasts became a question of vital importance to ship-owner and sailor, and the immediate results became evident in the construction of the magnificent Pharos of Genoa, erected on the mole of that port when that city of palaces and merchant princes and heroic admirals vied with Venice for the empire of the seas. Its style was elegant early Renaissance, and it soared and still soars three hundred and eighty-five feet above the water.

About the same time, in the reign of Henry VII., England showed a disposition to co-operate in the benevolent enterprise of mitigating the perils of the seas by founding the corporation of the Elder Brethren of the Holy and Undivided Trinity, better known as the Trinity House, established for the purpose of piloting ships and lighting the coasts, and designed to have control of the shores and adjacent waters of England and Wales, a pious work which it maintains to this day, Scotland and Ireland having distinct light-house boards of their own. The Trinity House corporation consists of a master, a deputy-master, nineteen acting elder brethren, eleven honorary elder brethren, and an unlimited number of younger brethren. Their supervision does not, however, necessarily include the supervision of small, purely local light-houses or beacons, which are left to the care of the municipal authorities.

A century later we are not surprised to find that the subject of lighting coasts had reached such importance that the French crown, among numerous other important light-houses, constructed the Tower of Cordouan, which in hydraulic architecture holds a rank never surpassed in modern times. Other light-houses have, perhaps, been built since then, combining superior constructive qualities, but none that equal it in architectural costliness and elegance. It is fitting that a superb city like Bordeaux should have the approach to its magnificent quays guarded by a sentinel like that of Cordouan.

Two leagues from the mouth of the Garonne lies a rock or reef some seven hundred feet long and nearly as broad at low water, but almost entirely covered at high tide. It is of the most dangerous character, and, after many an ill-fated bark had been lost on its cruel ledges, it was finally decided in the teeth of the elements to construct a lighthouse upon it. The task was undertaken during the reign of Henry II., in the year 1584, and was intrusted to Louis de Foix, the famous architect, who did not see it completed until 1610, in the reign of Henry IV. In consonance with the taste of the time, the builder adopted an ornate Renaissance style for the plan of the light-house, and the result was a structure of great durability, elegance, and beauty, in which no expense was spared; this led, however, to the practical observation that only an architect could have been so absurd as to lavish such moneys upon decorations that could be of no practical value when applied

to a building so remote from public appreciation.

The tower is surrounded and protected from the surges of the ocean by a lofty, circular, and slightly-sloping wall of circumvallation, one hundred and thirty feet in diameter. The entrance, which is on the south-east side, is through a passage let into the very massive masonry of this fortress-like wall; and within it, like bombproof casemates, are also included the apartments of the four keepers.

From the center of the inclosure springs the tower to a height of one hundred and eighty-six and one-half feet. The original elevation was one hundred and sixty-nine feet, which was increased in 1727 to the present height. The external appearance of the light-house is altogether contrary to the notion we generally have of such a structure, being somewhat pyramidal, the breadth of the base gradually tapering toward the summit, and with its cornices, pillars, statuary, and domed lantern, reminding one of a monument like the Hôtel des Invalides at Paris.

The first story contains a noble vaulted hall and two adjoining apartments, under which are the cellar, provisioned for six months, and the cistern provided with rain-water falling from the roof. Above the ground-floor, or rez du chaussèe, is a floor called the Apartment of the King, containing an elegant vestibule, a large reception-hall, and side-offices. The third story includes a very ornate

vaulted and gilded chapel, whose ceiling is checkered with marble panels. When the weather permitted, it was the custom in former times for a priest to cross over from the mainland and offer mass for sailors in this unique sanctuary. Among its other decorations are busts of Louis XIV. and Louis XV., and also of the architect of the light-house.

In the façade of the first story is a highly-ornamented doorway, over which are carved the arms of France supported by statues of Mars and of a female, possibly a Nereid, holding a diadem and a branch of palm. In side-niches below are statues of Henry II. and Henry IV. A separate circular tower attached to the main structure incloses a stairway with a landing at each story, and thus the harmony of the various apartments is undisturbed by stairs or ladders.

The Tower of Cordouan was first lighted by a coal-fire in an iron cage. As the heat gradually calcined and crumbled the walls, the lantern was leveled away in 1717, and the light was exhibited one story lower. But as this change, by reducing the distance of the radiation, caused much complaint, an iron lantern was again constructed, carried this time several feet above the first height of the tower, and the basin containing the candles that were substituted for a coal-fire was supported on a massive iron pillar. Various changes in the method of lighting the Tower of Cordouan have been employed from time to time since that period.

It is the first light-house that was ever furnished with a revolving light, and is now made effective in the wildest storms by a dioptric light of the first order.

Next to the Tower of Cordouan, there is no light-house of modern civilization which takes precedence of the Eddystone in point of historic interest and importance. But it is, of course, not to be compared to that of Cordouan from an architectural point of view. The narrow foundation afforded by the rock on which it stands, the extreme difficulty of building there, and the thoroughly practical, not to say prosaic, spirit which has characterised Anglo-Saxon methods on this subject at least, cause the Eddystone Light-house to be interesting solely as a triumph of scientific engineering.

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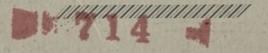
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